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ANNUAL FALL CONFERENCE

- Budgeting in an Expanding Economy
- Executive Morale
- Replacement Analysis
- Organization Communications

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Effective Executive Development

By EDWARD W. JOCHIM
President, SAM, 1952-1953

Editor's Note: It is, of course, impossible to cover the subject of Executive Development adequately in an editorial of this length. The SAM Conference on October 30-31 will provide an extensive treatment of this subject, both as to breadth and depth. The program of the Conference is set forth on the back cover of this issue.

THERE IS A general almost automatic agreement that the quality of management cannot be static any more than anything else can be static. It is either improving or deteriorating; that the kind of management cannot be static when everything managed is constantly changing; that management improvement must at the very least equal the rate of new, heavier, and more complex demands being made.

Unfortunately, the reaction to this condition, the activation of the means to handle this challenge, has, too, been largely automatic. Scientific management has not and is not being adequately applied to the problem of Executive Development. In how many cases do we find an adequate analysis of the problem, realistic goals, programs designed to attain these goals in the available time, and adequate checks being made on the rate of progress?

The problem is too often assigned to some staff assistant who, through lack of understanding or time, will recommend some other company's package program that may or may not meet his company's needs and conditions. The program is then given the official nod and another problem has been handled. Thus, we find programs in all stages of activation from those that never really got started to those that have built up a momentum beyond their needs sometimes without even meeting the needs. This happens despite all the tremendous time and effort and money being spent on the problem.

Is it not now apparent that Executive Development programs cannot be successfully delegated to any substantial degree. Who but the very top executives, after full use of all available staff assistance, can determine the end objectives, the adequacy of programs proposed to meet those objectives, check on the actual progress being made or even successfully communicate the objectives and policy to the organization to secure the group action so necessary for any real success.

Or, for that matter, who but the top executives can keep the top executives active in the program which is the real "sini quo non." Only when top executives utilize their multitudinous face-to-face relationships to the degree necessary to meet their Executive Development goals is there any probability of success. That is the very "guts" of any such program. The many "aids" to executive development can only be effective "aids" with such top executive activity.

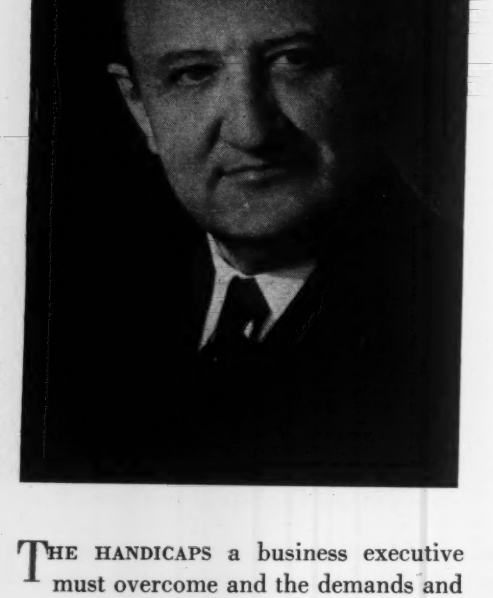
It is not meant to belittle the contribution of these "aids." They must, however, be placed in proper relationship to each other and to the overall program to maximize results. In order to develop this thought, let us consider a partial list of such "aids."

1. In Plant
   a. Multiple Management, Junior Board of Directors, Committees, line and staff meetings.
   b. Special and General Training courses.
   c. Projects
2. Formal Education
   a. Full time attendance at schools for limited objectives or for graduate or post graduate degrees.
   b. Evening or other part-time attendance for limited objectives or for graduate or post graduate degrees.
   c. Correspondence courses for limited objectives.
   d. Part-time teaching
3. Professional Societies
   a. Limited participation to improve technical knowledge and know-how.
   b. Extensive participation to develop breadth as well as depth.
4. Reading
   a. Limited to developing specialized knowledge and know-how.
   b. Broad to develop qualified management background.

Obviously, the program must be tailored to each individual to develop that individual's maximum potential. The individual program could conceivably use none of these "aids," or one or more of them in various combinations and amounts at various times. As we do not yet have exact means for building programs, we must proceed as best we can being careful to utilize to the fullest the helps that are available.

It is self-evident that all of this can only help a man develop. Whether he develops or not, or to what degree he fully develops his potential, depends on him. There is no sugar coated effortless way. The more valuable the thing is the more it costs in money, time and effort, as in this case, particularly personal continuous sustained hard work. Management skills are among the highest skills and cost correspondingly in money but even more in personal effort. It is very unlikely that a man merely willing to advance will advance far. It is not a passive thing. The man that will really develop is the one trying to develop himself to the best of his opportunity regardless of time, effort, personal expense, and even pleasures sacrificed.

So, first we must have the man that has the physical and mental requirements and the compelling desire to develop himself, then the top executive who sees the need and the means and is willing to personally contribute his best to the program, then the proper utilization of the "aids" to develop the executives capable of meeting tomorrow's management challenges.



The Basis of the Flexible and the Variable Budget in an Expanding Economy

By CHARLES C. JAMES

Associate Counsellor, Stevenson, Jordan & Harrison, Inc.

This paper sets forth the present day managerial approach to budgeting in our expanding industrial economy.

THE HANDICAPS a business executive must overcome and the demands and restrictions which beset his path, challenge his ingenuity, his initiative and his judgment. He cannot wait to meet each issue as it confronts him. He must foresee what is ahead and prepare his plans. Such of his plans as can be expressed in money, we call budgets.

In America, we have had our share of setbacks, and we shall have them again. But over the sweep of years America has had an expanding economy. This will continue as long as population continues to increase, as long as engineers continue to devise equipment and methods that enable the working population to create products and render services more and more abundantly with less and less effort, as long as research technicians and garret inventors continue to develop new products, better products, and new uses for old products, as long as purchasing power continues to be diffused widely and ever more widely, and as long as human hearts and minds yearn and strive to grasp tomorrow what is out of reach today.

A business enterprise creates and serves. It must keep pace with its increasing opportunities. It must serve the expanding demands of its workmen and its customers and at the same time pay a constantly increasing toll to its government for its right to life and protection.

Just how the acceptance of the premise of an expanding economy molds American planning is well illustrated in an address prepared by James J. Nance, president of one of our large electrical appliance enterprises for delivery before a group of retail merchants. He said in part, "We must first realize that our future growth opportunity lies in the new items. Refrigerators, which were the backbone of our past development are a replacement item — a good stable overhead carrier, but not a big profit and growth producer.

"Here's a quick run-down on degree of market saturation: dishwashers, 1.5%; disposals, 1.4%; freezers, 5.2%; dryers, 6/10 of 1%; water heaters, 10.1%; electric ranges, 18%.

"I'd like to take a moment to convert those saturation figures I just gave into more meaningful terms—in other words, gentlemen, DOLLARS.

"Taken at retail, there are 425 million 700 thousand dollars of business in bringing dryers up to the 5 per cent saturation level. There're 930 million involved in putting them in just 10 per cent of electrified homes. Disposals represent a 216 million dollar business at 5 per cent saturation, and 512 million at 10 per cent. There're 421 million to be done in dishwashers before they reach 5 per cent saturation, and 1 billion dollars' worth by the 10 per cent level. Freezers are now in 5.2 per cent of electrified homes. Putting them in another 5 per cent will mean 787 million dollars' worth of business. Putting them in a total of 20 per cent — one out of five electrified homes—will mean 2¼ billion dollars of sales. In water heaters, which now have a 10 per cent saturation, there're 350 million to be done to reach 15 per cent saturation and 908 million to reach 25 per cent.

"If you add those totals up, gentlemen, you find more than 5½ billion dollars of business will accrue from bringing only five major appliances up to what will still be extremely low saturation points. I am positive that much of this sales potential is going to be realized in the next five years; and certain that all of it will have passed into Dealer cash registers by 1960."

This paper deals with the problem of budgeting as it presents itself to organizations which seek, like those addressed by Mr. Nance, for substantial and continuous expansion. The subject will be discussed from the bird's eye view of the chief executive, rather than from the worm's eye view of the technician—that is to say without more attention to the multifarious details of methods and practices than is necessary for illustration.

DEFINITIONS

A *budget* is a plan for the successful operation of an enterprise. It must be based on the potential business of the period. While it may be built up in physical units or in the common denominator of money, its purpose is to develop the required financial outcome of the prospective operations of the business.

In budgeting expenditures it is necessary to keep separate those which will

remain substantially independent of volume from those which will vary with volume.

Allowance for these two points leads to the development of what is termed the flexible and the variable budget.

The terms "flexible" and "variable" in American usage have generally been synonymous and interchangeable, but for the purpose of this paper a distinction has been prescribed by the International Committee which is as follows:

The *flexible budget* is a schedule of allowances for expenditures for advantageous business purposes as predetermined more or less by executive foresight and discretion, being flexible in that they must as far as possible be regulated by management to keep them in conformity with changes in conditions and requirements. Such expenditures include what are commonly called "fixed charges," as well as "nucleus costs," "organization expenditures," and "establishment expenses," but which hereinafter will be termed "period expenditures."

Many such expenditures are not subject to reduction by executive decision during a particular budget period, e.g., depreciation, property taxes, insurance premiums, rents, and other long term commitments. Too frequently, however, by terming such items "fixed costs" or "constant costs," sight is lost of the responsibility of management to exercise its resourcefulness in regulating them when needful, and wherever regulation is possible.

The *variable budget* is a schedule of allowances for expenditures which prescribes the amount by which they should vary in direct relation to the volume of physical production or other saleable output. Hereinafter such expenditures will be termed "product expenditures."

The purpose of making budgets flexible and variable is to facilitate control of expenditures when volume of business increases or decreases during the period.

In American parlance these two types of budgets are commonly called "control mechanisms," or more shortly — "controls." They are useful in indicating the need for managerial action to keep outgo for costs synchronized with income from sales. The challenge to the business manager is the requirement that he must not permit his plans to go too far awry, under the penalty that if he does he will find himself with no business to manage. The test of his ability as an administrator is his success in minimizing the variances between his budgets and his performance. This requires not merely control of performance but also adequate foresight in developing budgets.

As has been said the basis of budgeting, not the process of budgeting is the assigned subject of this paper. The basis of budgeting for an enterprise is the volume of business expected for the budget period.

MARKET RESEARCH

As the basis for budgeting in any industrial enterprise, adequate answers must be found for these preliminary questions:

(1) What types of products can we make that people are able and willing to buy?
(2) At what price?
(3) In what quantity?

(1) *What types of products can we make that people are willing and able to buy?* — This is a compound question that requires answers developed by coordination between (a) product and process research and (b) market research.

This question demands continuous study. The constantly changing patterns of public taste, standards of living, and customer preferences and prejudices, combine to eliminate the supplier who does not anticipate trends in market acceptance. Market research may or may not be able to uncover the line of least resistance to the customer's pocketbook by asking a representative cross section of people what they want or need and expect to buy in the near future. Other lines of investigation may yield more trustworthy results, such as observation of buyer's choices, analysis of trends of sales from year to year, disproportionate changes of disposable income among classes of customers with differing wants. Conclusions from such research studies are approximations at best. Nevertheless such studies are necessary.

(2) *At what prices will the products we can make find acceptance?* — Even more uncertain are prophesies as to price trends based on market research. The most potent factor in price setting is competition — not only competition from sellers of the same or like products but more importantly the competition from sellers of alternative products, which may cover a wide field. Since all prices are set by voluntary action their control is subject to all the vagaries of human impulse. Nevertheless, prices have a tendency to stabilize at a level far enough above the costs of the more efficient producers to make it possible for them to operate profitably. This being true, a study of price fluctuations will ordinarily set outside limits within which a fair average level may be counted on to prevail.

(3) *In what quantity will the products we can make be sold in the markets we can serve?* — An approximation of the sales probabilities for any product may require an exhaustive study of many influencing factors, such as:

(a) How many people are there in our market?
(b) Are they increasing or decreasing in numbers?
(c) How much money have they?
(d) Is the value of their money increasing or decreasing?
(e) Is their income increasing as fast or faster than the value of money is decreasing?
(f) How good is their credit?
(g) Is our product high or low on the list of things wanted by people who can afford to buy it?
(h) How can more people be induced to want it?

This paper prepared by the Committee on Financial Research and Development of the Society for Advancement of Management, Inc., was presented at the 9th International Management Congress July, 1951, held in Brussels, Belgium. The following were members of the above committee:

Charles C. James served as Chairman of the above committee and United States representative on the International Committee dealing with the Flexible and the Variable Budget at the 9th International Management Congress, held in Brussels, Belgium, July, 1951.

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Eldridge Haynes, Past President of the National Management Council and President and publisher of "Modern Industry", New York, N. Y., served as an ex officio member of the Committee.

SALES POTENTIALS

Evidently for any product there is a potential market, which may be elastic to a greater or less degree. In normal circumstances the demand for soap is relatively inelastic; persons habituated to its use will not consume very much more or less because of ordinary fluctuations in their income. While they may be persuaded to use one soap in place of another, or to find new uses for soap, the total demand is not likely to change rapidly, even though there are shifts in the sales of particular producers.

A first step in estimating demand is the determination of this total potential market for a product. While the determination of total sales possibilities for a product may be one of the most elusive subjects of inquiry, data for established products are available in many cases in governmental statistics and those compiled by trade associations for the benefit of their members. In other cases, surveys and tests in representative areas or segments of the population may furnish some basis for predicting the volume of demand.

Frequently relationships can be established between the sales of a product and related data. The placing of building contracts is obviously related to the sale of floor coverings, of paint and of various other commodities. Often factors will vary together. Thus, the sale of washing machines appear in some cases to bear an inverse relationship to the incomes of individuals; washing machines may be bought to reduce laundry bills.

By applying methods of statistical correlation it is possible to develop indices, such as the number of installed telephones, the circulation of certain journals and the like. The potential sales of a product in any county may then be estimated approximately, by a ratio to the installed telephones, the circulation of a journal or some other factor or combination of factors, for any area of the country.

SALES FORECAST

Having obtained basic data as to the probable potential market for our products, the next problem is to develop the probable volume of our own sales, as determinable from the following factors:

(1) What are our company's competitive advantages and disadvantages?
(2) Of the potential market demand what part can we expect to sell?
(3) What will be our cost to make and sell in that quantity?
(4) What financial arrangements must be made to enable us to make and sell?

(1) *What are our company's and its product's competitive advantages and disadvantages?*—A list of advantages and disadvantages will include the following factors, at least:

(a) Reputation of the manufacturer or distributor.
(b) Customer loyalty.
(c) Customer reluctance to change.
(d) Utility of design of product.
(e) Attractiveness of design of product or its packaging.
(f) Quality.
(g) Service promises and performance.
(h) Price.

The one best way to find out what potential customers think about these competitive factors is to ask a representative cross section for their opinions. To conduct such inquiries through salesmen without training is usually unsatisfactory; they are too apt to have preconceptions as to what the customer will want. With adequate instruction field salesmen can learn to do an objective job of market survey. When this is supplemented by expert review and evaluation of results the procedure of trial and

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Philadelphia, Pa.

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Schenectady, N. Y.

James J. Nance, President
Packard Motor Co.
Detroit, Mich.

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Former Vice President (Retired)
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Sprague Electric Co.
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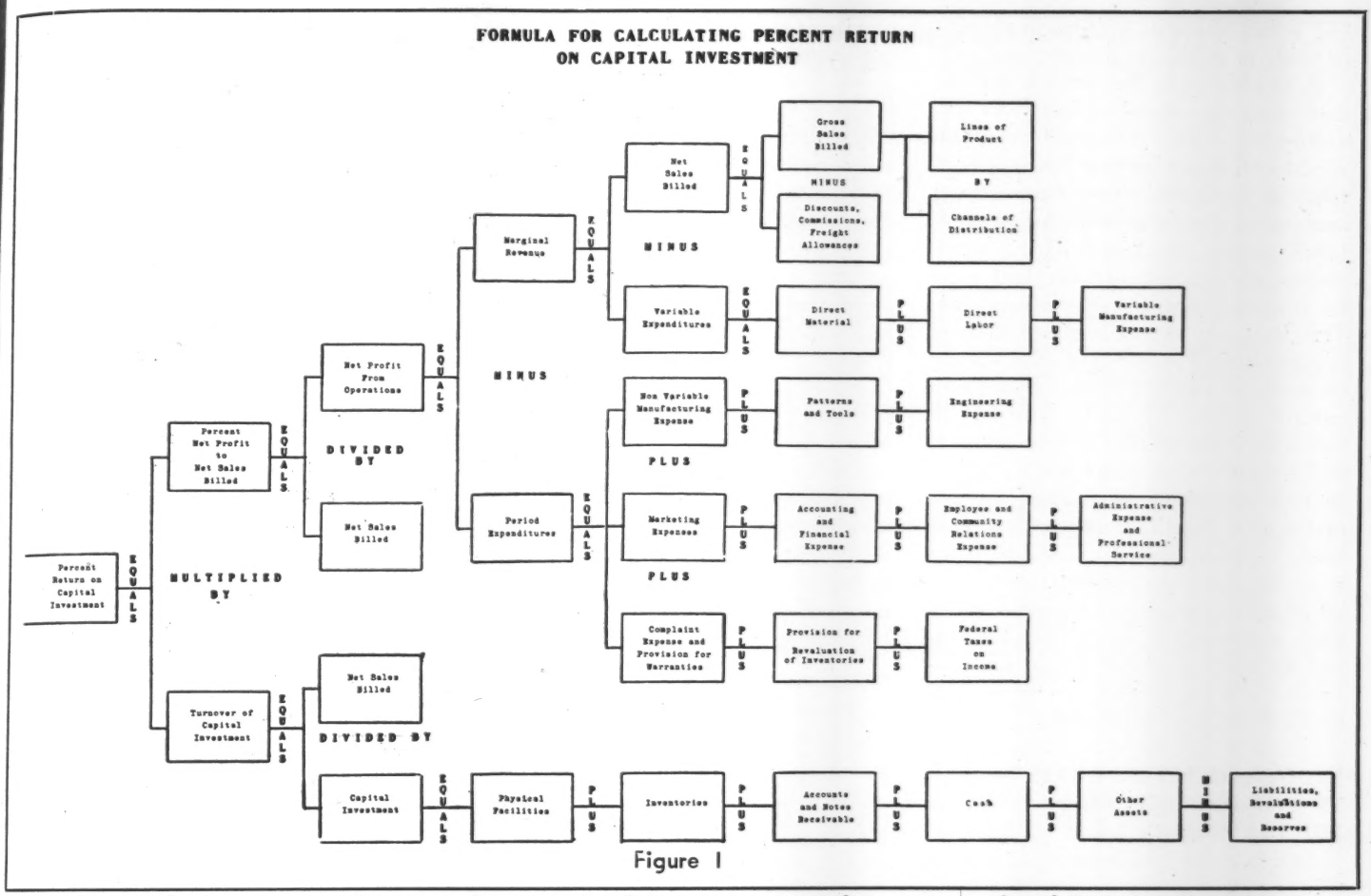


Figure 1

error will after a few years produce refined returns. To get prompt and satisfactory results a specialist is necessary. (2) *Of the potential market demand what part can we expect to sell?*—Within the limitation established by the foregoing data the potential volume of sales of each of our own products will be determined by the force of our publicity and the drive of our sales solicitation. (3) *Of our potential sales volume how much will our costs to make and distribute permit us to sell at a profit?*—Profit is the distance between price and cost. Our prices must be as high as we can make them, without pricing ourselves out of competition, and our costs must be as low as we can make them, without sacrificing essential quality and service. If the spread between them, on an average volume of sales within the area of our natural markets, will yield an adequate profit after providing a fair margin of safety against unforeseen contingencies, we shall justify our economic existence. If our profits are dependent on sales volume obtained from the area of diminishing marginal revenue, or reduction of costs through abnormal productivity, our business sooner or later will prove vulnerable to competition or other economic set backs.

While the level of obtainable prices is largely determined by competition, the minimizing of relative costs is mostly dependent upon the foresight and ability of management, despite the fact that there are many elements of cost which are fixed by conditions beyond the control of management.

Relative costs of production and distribution may be reduced by careful investigation and improvement of a multitude of influencing factors, the most important of which are these:

(a) Location of plants near or far from sources of raw materials and markets for products — Transportation costs.

(b) Selling—Channels of distribution (wholesale, retail, mail order, direct), advertising, sales solicitation.

(c) Customer service—District warehouses, customers' stock inventories, repair parts and service agencies.

(d) Fixed charges — Property and franchise taxes, insurance premiums, rents, interest, salaries.

(e) Plant and equipment — Layout, labor saving machinery and tools, special purpose vs. general purpose machines.

(f) Labor efficiency and pay—Esprit de corps, wage incentives, job evaluation, personnel service.

(g) Material usage—Yields, quality, substitutes.

(h) Organization—Supervisors, technicians, salesmen, clerks, executives.

(i) Financing—Working capital, inventory control, investments.

Within the possibilities developed by a study of all these factors our costs can and must be predetermined at the irreducible minimum consistent with effective operations. Then if our sales forecast indicates a potential revenue sufficient to cover our costs and yield a satisfactory profit, we can face the future with confidence. Figure 1 portrays graphically how all sales and all costs mingle to produce an adequate or inadequate return on the money invested in the business.

(4) *What financial arrangements must be made to enable us to make and sell?* —If, in addition to the manifest need for more working capital as sales and production increase, business expansion would necessitate further investment in requisite facilities, either from new financing or the investment of accumulated reserves, the length of the period during which such funding will serve its purpose is a prime consideration. This is to say that all money invested in a business must not only yield a profit on such investment but also must be recovered before its profit earning life comes to its inevitable end. Wisdom in making such investments justifies erring in underestimating as against overestimating the length of the period. It is better to amortize the cost of a building, a special purpose machine tool, or a set of dies or patterns before the end of their economically useful life, than to end up burdened with a residual book value with no further revenues from which it may be recovered.

BUDGETING EXPENDITURES TO SYNCHRONIZE WITH FLUCTUATIONS IN SALES

At this point it is important to recognize the fundamental change in point of view which management must adopt in planning for operations, as soon as it has completed an estimate of earnings on the basis of its sales forecast. Up to this point we have dealt with an analysis of possibilities for profitable operations. From here on we must prescribe the dynamics of accomplishment, for which the flexible and variable budgets provide control mechanisms of invaluable help in making our profit dreams come true.

In considering how budgets are developed and used much confusion of thought will be avoided by keeping clearly in mind the fundamental difference between costing and budgeting.

Costing is allocating and apportioning among units of product, all expenditures for production and distribution.

Budgeting is planning how to spend money to produce maximum profits.

Accountants have developed formulae and a terminology for cost finding which tend to throw us off the track in budgeting. The impulse to use the same computations and description of data for both costing and budgeting should be vigorously resisted.

The variable budget is a compendium of allowances for materials, labor, and expenses to be expended as efficiently as we know how, from which we shall derive a definite volume of saleable output. From the sale of that volume of output at predetermined prices we shall receive a total revenue. After deducting our variable product expenditures we shall have left a marginal revenue which for any accounting period must exceed our period expenditures if we are to have a profit from our sales during that period.

Budgets for control purposes may be originally prescribed in terms other than money, and the distinction between their variable and their flexible characteristics may not be apparent. For example, the allowance for service labor in a given department may be budgeted in hours to increase or decrease in relation to the hours of operative labor in the ratio of

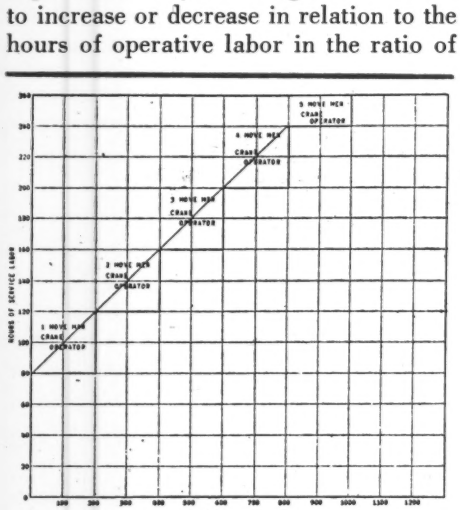


Figure 2

1:5, but that ratio may apply only to the increase or decrease if the budget includes a basic allowance which is dependent of the hours of operative labor. To illustrate, an allowance must be made for an elevator operator or a crane operator, if elevator or crane service is provided, regardless of whether or not he is kept busy with his duties. So we shall have a weekly departmental budget for service labor, stated in working hours, as shown in Figure 2.

Obviously, there must be a basic minimum allowance of eighty hours of service labor, on which is superimposed an additional allowance which increases in direct relation to the increase in operative labor.

However, to relate all budget allowances to forecasted revenue necessitates first, that all budgets must be converted into money costs and second, that all allowances must be separated between product and period. The techniques for making this separation have been adequately described through a long procession of accounting literature, beginning perhaps with "A Technique for the Chief Executive" by John Williams in the *Bulletin of the Taylor Society*, April, 1922, and summarized in "The Volume Factor in Budgeting Costs", *Research Series No. 18, NACA Bulletin*, June 1950.

Briefly, deducting the budget allowances for variable "Product Expenditures" from the total budget allowances for all expenditures for any period leaves the budget allowances for non-variable "Period Expenditures". For example, if the aggregate of all budget allowance for ten thousand hours of direct labor in a month is twenty thousand dollars and for nine thousand hours is nineteen thousand dollars, then the variable allowance for product expenditures is:

$$\frac{\$20{,}000 - \$19{,}000}{10{,}000 \text{ hrs.} - 9{,}000 \text{ hrs.}} = \frac{\$1{,}000}{1{,}000 \text{ hrs.}} = \$1 \text{ per hr.}$$

Accordingly, the variable allowance is $10,000 for 10,000 hours and $9,000 for 9,000 hours while the flexible allowance for period expenditures stands at $10,000 in either case until changed by administrative action.

Direct labor hours	10,000	9,000
Aggregate budget allowances	$20,000	$19,000
Variable budget allowances	10,000	9,000
Flexible budget allowances	$10,000	$10,000

Let us return now to our formula. Product Expenditures for units sold during the budget period deducted from Net Sales Billed, leaves Marginal Revenue for the period, which must exceed the Period Expenditures to yield a Sales Profit. For example, if Product Expenditures for units sold to customers during any budget period were $10,000 and the Net Sales Billed were $20,000, the Marginal Revenue for the period would be $10,000. If the Period Expenditures were $9,000 the Sales Profit for the period would be $1,000. If the Period Expenditures were $11,000 the Sales Loss would be $1,000.

Net Sales Billed	$20,000	$20,000
Product expenditures	10,000	10,000
Marginal revenue	10,000	10,000
Period expenditures	9,000	11,000
Sales profit or (loss)	$1,000	($1,000)

Moreover, if the Marginal Revenue from any type of product, or any sales unit, territory or channel of distribution, falls short of the period expenditures which its production and distribution necessitates, our over-all profits are reduced by the deficiency.

Looking at the needs of the case from an administrative point of view we see that our principal concern must be to get the maximum obtainable amount of marginal revenue during the budget period.

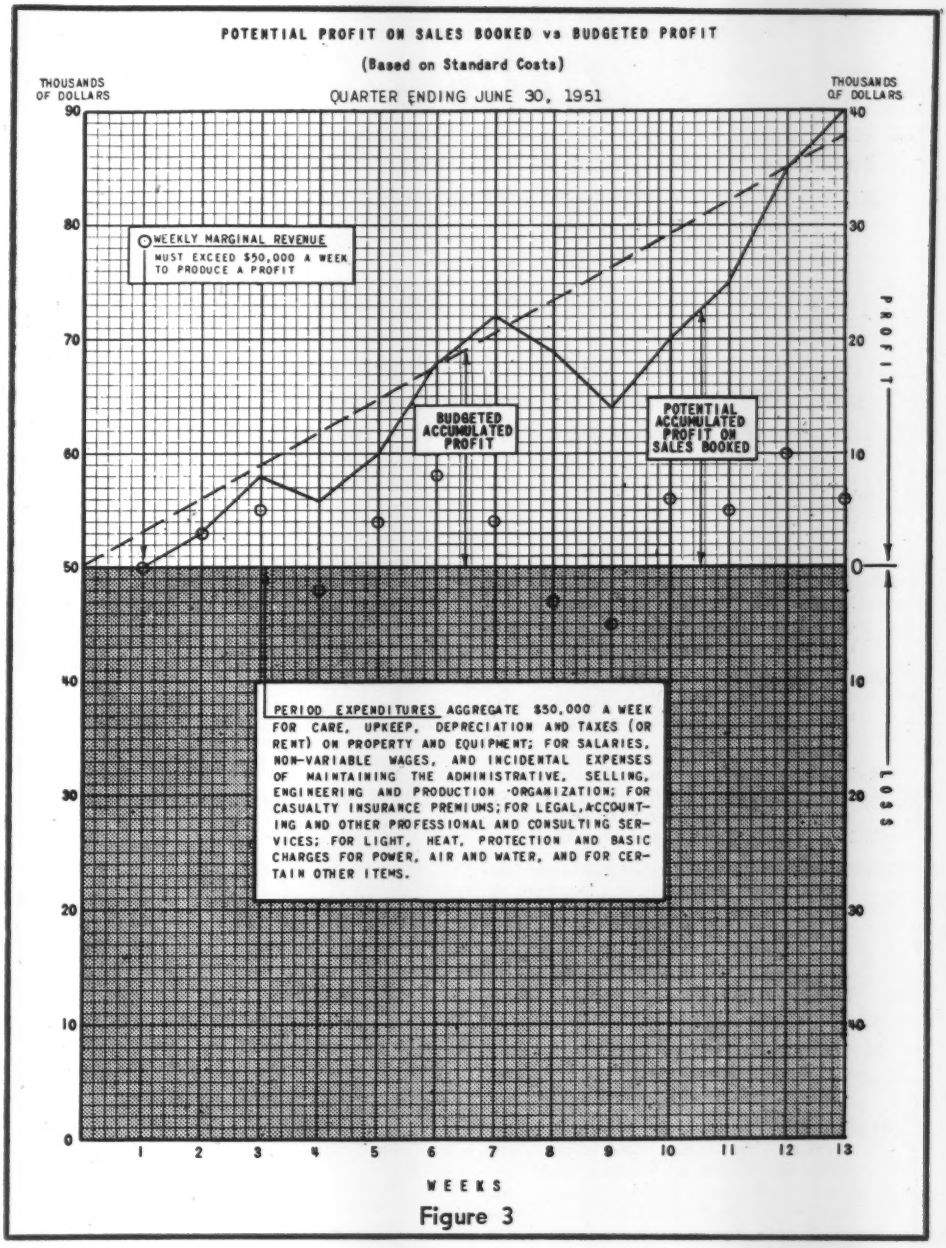
This requires, first, the drive for sales with concentration of efforts on the sale of products that yield the best selling prices per dollar of product expenditures. This demands successful sales management. Second, the greatest possible use of our available productive facilities. This demands competent works management, coordinated with sales management.

After Charles M. Schwab had become chairman of the board of directors of the Bethlehem Steel Company he was asked, "Mr. Schwab, now that you have given over to Mr. Grace the active direction of your company, is there any one thing on which you still keep your finger?" Quickly Mr. Schwab answered, "Yes. Idle machine time. I know as long as I keep my plants loaded up with work the boys will do a good job turning out profits."

When in 1948 Jacques Chapuis and his group of Swiss industrialists had finished their tour of American enterprises and were ready to embark for home, he was asked, "Monsieur Chapuis, what impressed you and your associates most about American factories?" M. Chapuis unhesitatingly answered, "The number of expensive special purpose tools we saw standing idle."

By our budget allowances for period expenditures we procure facilities, service, and management. If having made them available we do not make adequate use of them their high cost will wreck us.

Period expenditures run on constantly. Marginal revenue must build up in sufficient volume to absorb these period outgos. This build-up cannot be uniform during the period because of variations in products and prices, and fluctuations in volume of sales. Figure 3 shows the accumulation of profit as the net difference between the fixed or period expenditures and the marginal revenue, week by week.


POTENTIAL PROFIT ON SALES BOOKED vs BUDGETED PROFIT
(Based on Standard Costs)
QUARTER ENDING JUNE 30, 1951
THOUSANDS OF DOLLARS
THOUSANDS OF DOLLARS
WEEKLY MARGINAL REVENUE MUST EXCEED $50,000 A WEEK TO PRODUCE A PROFIT
BUDGETED ACCUMULATED PROFIT
POTENTIAL ACCUMULATED PROFIT ON SALES BOOKED
PERIOD EXPENDITURES AGGREGATE $50,000 A WEEK FOR CARE, UPKEEP, DEPRECIATION AND TAXES (OR RENT) ON PROPERTY AND EQUIPMENT; FOR SALARIES, NON-VARIABLE WAGES, AND INCIDENTAL EXPENSES OF MAINTAINING THE ADMINISTRATIVE, SELLING, ENGINEERING AND PRODUCTION ORGANIZATION; FOR CASUALTY INSURANCE PREMIUMS; FOR LEGAL, ACCOUNTING AND OTHER PROFESSIONAL AND CONSULTING SERVICES; FOR LIGHT, HEAT, PROTECTION AND BASIC CHARGES FOR POWER, AIR AND WATER, AND FOR CERTAIN OTHER ITEMS.
PROFIT
LOSS
WEEKS
Figure 3

In practice a running record will be kept to show in figures the actual accumulation of marginal revenue from current sales in comparison with the period expenditures assignable to each day, each week, each month, each quarter and each year, as it passes.

Whenever this comparison shows insufficient marginal revenue it calls for administrative investigation and action.

At any time the period expenditures are an aggregate of many items, but the individual items are budgeted with widely differing periods in view. A plant building costing a million dollars may be intended to provide housing for thirty years. A machine tool costing ten thousand may be expected to operate at competitive costs for ten years. An electric lamp bulb costing a dollar should not have to be renewed in less than ten weeks. A sales manager may be employed under an annual contract. A superintendent is paid by the month. A foreman may be hired by the week, a move man by the day. A machine setup may last for a thousand operations or ten. Taxes and insurance premiums run on forever in increasing measure. The larger the enterprise the more complicated the problems of budgeting period expenditures. But taken as a whole their purpose for any particular period is to provide opportunity for earning mar-

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ginal revenue during that period. How effectively they serve this purpose is a test of administrative judgment.

One of the characteristic differences between product and period expenditures is that whereas product expenditures are usually fairly measurable, the benefits derived from most period expenditures are intangible. Accordingly, many flexible budget allowances must be determined largely by vision and feeling. In the hearts of American business men there is a steady confidence in the future of their enterprises. It is this feeling which inspires them to budget their period expenditures to provide facilities, services, and management adequate to take full advantage of the profit possibilities in our ever expanding economy.

Budgeting is not peculiarly American. Almost every well-run business in every part of the civilized world practices it. But the concept of an expanding economy is typically American.

Few American businessmen regard their enterprises as static. Most of them plan to build their businesses to greater heights. Some plan, through vigorous competitive marketing, to gain a larger share of the existing business. Others, by creative selling, promotion and advertising, broaden the market for the industry as a whole. Still others reinvest profits in research—technical and commercial—and are from time to time launching what amounts to new businesses.

This concept of an expanding economy obviously modifies the American approach to budgeting. In the paper published here, Charles C. James, a distinguished management engineer and consultant, and his committee have made a notable contribution to our understanding of the relationship of an expanding economy to realistic budgeting. This paper was only one of many outstanding papers presented in July to 1,700 management people from the free world who attended the 9th International Management Congress in Brussels. But "The Basis of the Flexible and The Variable Budget in an Expanding Economy" perhaps went farther than any other in developing an understanding of the foundations of America's strength.

Eldridge Haynes
Past President
National Management Council

Some Causes Of Executive Job Dissatisfaction

by AUSTIN M. FISHER

Chairman of the Board, Fisher, Rudge & Neblett, Inc.

Austin M. Fisher

Executive morale poses difficult problems. The author analyzes and proposes solutions to some of these problems.

JOB DISSATISFACTION is an ailment which hurdles job descriptions. Its ravages are better hidden in some quarters than in others, but investigation often proves them to be as prevalent in executive headquarters as in the shop. The symptoms may vary from company to company, but the basic causes are apt to be the same. In fact, most causes of executive discontent can be classified under two headings—(1) compensation, and (2) attitudes.

Some executives have grounds for complaint under both scores, but most cases seem to lean one way or the other. Many employers excel from a compensation point of view, but fail when it comes to the personal and political aspects of dealing with executives. Others recognize the importance of increased policy participation and improved creature comforts, but have allowed monetary rewards to slide in relation to others in the industry or area.

Dissatisfactions over pay are the easier of the two leading types to detect, although their correction is inhibited to some degree by salary controls and the income tax. Corporate salary policies are largely to blame for the fact that the average executive has been unable to keep abreast of the cost-of-living spiral, and that his percentage rate of progress has lagged substantially behind that of his clerical and production contemporaries. By and large, companies have proved themselves to be more sensitive to the demands of organized labor than they are to the need for rewarding initiative, creativeness and sound judgment.

METHODS OF COMPENSATION

There are five fundamental methods of compensation—straight salary, bonuses, stock participation, pensions and insurance. Each gives rise to certain problems, so it helps to use them as vantage points in approaching the subject as a whole. Doing so brings into immediate focus the largest reason for executive complaints regarding compensation—the lack of an organized salary program for the management personnel.

Providing such a program is more than a matter of removing or preventing internal salary inequities, however important those may be. It goes beyond establishing a hierarchy of executive positions based on the functional content of such positions, plus the establishment of salary levels which compensate fairly at each level for skill and responsibility. It must go further: if it is to allay and eliminate executive discontent over compensation, the organized salary program must determine the *adequacy* of the salary levels.

"I earn considerably less than the president of our nearest competitor," one top executive confided. "Yet our company last year earned more money on a lower volume of sales and paid a higher rate of dividend. Does that make sense?"

Obviously, it does not. Neither does the fact that this particular firm's divisional vice presidents exercise greater responsibility than the vice presidents of their closely-knit competitor, but each earns less than the executive vice president of the other concern. Also rankling in their minds is the knowledge that other corporations in or allied with their industry pay higher executive salaries in return for a lower grade of management.

By and large, executives tend to be dissatisfied with a formal salary program (where one exists at all) which does not establish a workable relationship between executive salaries and corporate salaries, profits and profit margins, and which does not:

1. Eliminate intra-company and industry salary inequities.
2. Provide automatic and uniform adjustments to meet the impact of inflation.
3. Provide periodic objective reviews of individual performance.

It is also important for the formal salary to be sufficiently broad at particular levels to permit significant increases. Although a 40 per cent range is considered normal, narrower ranges are still in use by many firms.

BONUSES AND STOCK OPTION PLANS

Some executives find fault with the bonus idea because payments, while referred to as incentives, are more often based on amount of salary than on the individual's contribution to profit. As one department head phrased it, "Why give the largest bonuses to those in the highest tax brackets? They can only retain a small fraction, which becomes a token amount in terms of combined salary and bonus."

"We'd be better off in the long run," said an insurance company executive, "if we paid larger salaries and less bonus. Furthermore, our bonus payments are computed annually, which means that some people who would fare better on a quarterly basis lose out by a hair's breadth in the last month or two."

Divisionalization generates another type of complaint in regard to bonus payments. "Our division makes money and supports all the rest," runs a familiar criticism. "We earn the profits and they share in the bonus. When the company sold one of those divisions at a loss, we didn't get any bonus that year —although our division's operating profit for the period was higher than ever before."

Stock option plans seem to be growing in popularity, especially among the older higher-placed executives who derive a tax advantage from deferring compensation. But when denied an opportunity to buy stock, as sometimes happens in closely-held concerns, such executives grow bitter. "I would feel a part of the enterprise if they'd let me buy stock," one general manager observed. "I'm sure if all the executives owned some shares we'd have less difficulty solving the firm's problems. As things now stand, there's a general feeling that 'we only work here'."

Some younger executives feel, on the other hand, that deferred compensation is unfair because the money is withheld in the years when they are building homes and raising families. They point out that income tax savings produced by such plans mean less to them than it does to the men higher up—and also that it is possible for increased inflation or changes in the tax laws to wipe out whatever benefits are created.

There is considerable criticism among executives regarding the adequacy, or inadequacy, of their companies' retirement plans. Their objections could be summed up as follows: "Too little—and too soon." Many feel that the payments provided are too small to meet current living costs, after all feasible economies, and that the plans should therefore be changed to postpone the "zero hour."

"Theoretically," one controller commented, "a man who is due for retirement only two to five years hence should be making adjustments now. He should move to a smaller house, and also whittle down his budget for food, entertainment, clothing and other consumables. This may be true for rank-and-file employees, but it hardly fits executives. Management people usually retire at the peak of their careers. How can a manufacturing vice president or a general sales manager cut back his style of living while still performing his job?"

Recognition of the fact that older employees need assistance in adjusting financially and psychologically to the retirement phase has led some companies to experiment with pre-retirement programs. In most cases, however, these are directed more toward the average employee than they are toward executives.

PENSION PLANS

Pension plans which depend on the company's ability to pay are another cause of executive dissatisfaction. "No matter how small a pension may be," said one official of a firm whose pension plan is not of the funded variety,"it at least should be certain. Unfortunately, our company has so many employees over fifty that it would cost more than the directors or the stockholders would ever authorize to convert to a funded plan. This is hard on everybody, but especially on our executives. They know more about the hazards to long-lived success, and recognize the toll of obsolescence, which is particularly high in our field. Uncertainty over the company's ability to pay their pensions after they retire is a major cause of discontent among our executives."

Under such conditions, operating practices and changes in company policy tend to be criticized at every level of management. Executives part way down the ladder feel concerned over decisions which other people are making, but which affect their own retirement security. Unless they are shown the reasons for changes, they are apt to scent new and unknown dangers in every "revolutionary" step.

Not all retirement problems affecting executives have a financial impact. Consider the unenviable position of one senior vice president whose problem was recently brought to our attention. Facing early retirement under a newly adopted pension plan, he examined the retirement status of his second and third echelons, only to find that practically every possible successor to his post would also be retired within five years. In spite of this, he was unable for many months to obtain action or decisive interest from those above him. The period of uncertainty, he later revealed, almost caused him a major breakdown.

INDECISIVENESS VS. EXECUTIVE MORALE

On the attitude side of the picture, as contrasted with compensation problems, inability to obtain quick, clear-cut decisions is a constant bugaboo with many management people. Pressed from below, or by customers, they find themselves "batting their heads against the wall" or "trying to chop a sofa pillow with an axe" when they take their problems upstairs. Important operating decisions are held up, while the men who asked for them chafe against inaction. One installation chief of a large public utility confessed dissatisfaction over his job and his future with his company because of the way his requests and inquiries are passed from specialist to specialist. "Nobody at headquarters," he complained, "seems to have the power or the inclination to intervene."

Equally hard on executive morale is the president or chairman of the board who runs a "one-man show." This type of situation is a problem in itself—an operating problem, a personality problem—often a financial problem. People of this type incline to delegate, then yank back; to meddle with the way subordinates carry out assignments; to want information at all times regarding

the pettiest details, and to insist that all actions be cleared through them.

Both types ultimately and unconsciously force those beneath them into an informal organization which enables the members to function with minimum application to, or interference from, above. This in turn breeds executive discontent. Although the resultant line-crossing and other deviations do get the work done, they have unfortunate side-effects, as when one grapevine group undermines another. Under such conditions, knowing the right people becomes more important than winning the support of the organization as a whole, until the company becomes hexed with politics. The more the actual relationships differ from those depicted in the organization chart, the harder it becomes for the conscientious executive to function as top management expects him.

In this general category we are apt to find the company whose relations between the board of directors and the appointed management are ill-defined. We often encounter confusion regarding the directors' role. An "inside" board, with company officers serving as directors, is apt to meet more frequently than would an "outside" board, and will also tend to make operating decisions, as in the case of adding new plants, new equipment, new models, etc. The "outside" board, on the other hand, may care principally about end results—the profits.

If the president's relations with the board are what they should be, all matters in either direction clear through him. In some instances, however, the chairman of the board is really the top operating official, a situation which sometimes lead executives to by-pass the president when pressing for decisions. There are other cases where the chairman of the board is the chief of staff, leaving operating and the chain of command to the president. While there is no "best" way for all companies to follow in this regard, it is important for all executives at all levels to understand who is in charge of what. Even when things are well spelled out, new "gray zones" tend to develop with the passage of time, so the need for clarification is continuous. In fact, many corporate managements have been startled to find, through attitude surveys, the extent of departure in practice, from the organization chart on paper.

During World War II, Austin M. Fisher was technical advisor to the National War Labor Board in Washington, and labor relations consultant to the U. S. War Department. A graduate of Wesleyan University, he is a former examiner of the New York State Labor Relations Board, and was vice-chairman for Industry and Labor of the Citizens Food Committee appointed by President Truman.

Now Chairman of the Board of Fisher, Rudge & Neblett, Inc., New York and Los Angeles, a management consulting service to over 70 corporations in the field of industrial, labor and community relations, Mr. Fisher is consultant to the Committee on Christian Social Relations and also treasurer and a director of the New York State Committee for Equality in Education. In addition, he has written numerous articles on labor relations appearing in national magazines, such as Reader's Digest and Saturday Evening Post.

PHYSICAL CONDITIONS OFTEN TO BLAME

Outmoded office facilities are a frequent cause of executive complaint. Except under emergency conditions, crowding is resented. So is the "bull pen" type of office set-up, still in use by many companies, especially banks.

Our company's file of survey reports contains many references to the need for office modernization, including air-conditioning, sound proofing, carpeting, proper lighting, up-to-date furniture and adequate reception and conference facilities. In other words, the typical executive wants to look the part. He also knows that proper surroundings contribute to efficiency, both his own and his staff's. "I had to change jobs," one assistant treasurer admitted after announcing a new connection. "That office was 35 years behind time. I was beginning to feel like a museum piece."

"PROMOTION" ALONG A DEAD-END STREET

Among the maturer executives, one of the deep-seated causes of job discontent grows out of a "dead-end" promotion policy. The path of succession in many companies is circumscribed by the background and prejudices of the current chief. If the president came up through production, he is apt to favor production people for advancement. If he began as an accountant, and followed the auditor-to-controller to financial-vice-president circuit, accounting personnel may have the inside track. The same is often true of former sales managers, who tend to believe that one must have been a salesman to qualify for president.

"I wish I had known sooner," sighed one vice president about to be by-passed for the Number One job. "I should have found me a company where the boss was an engineer, the same as I am. He would consider me qualified to succeed him upon retirement."

THE HIRING PROBLEM

Other executive grievance situations center around the hiring problem. One that is fairly typical concerns an official's choice of a new assistant, particularly an executive assistant. Two interests come to a crossroads here—that of the superior, who wants someone whom he deems to be congenial and competent, and that of top management, which sees the appointment as part of the promotion stream. Many a disgruntled executive has confided, "*I* never would have promoted *him*!", meaning his assistant. So two people become dissatisfied with their jobs. Sometimes the assistant suffers for quite another reason: he works out so well his superior holds him back when further promotion opens. One of the minor virtues of a

formal salary classification system is the way it spots such cases.

On a larger scale are such difficulties as inability to "hire ahead" for budget reasons. One harrassed executive is head of a division with some 20,000 employees, the majority of whom have had 25 years service. Another ten years will bring crippling retirements, because trained replacements are not available. Company policy requires promotion from within, and there are not enough qualified newcomers to fill the post that will open up as others retire. But whenever the divisional president pleads this case with the top officers and the executive committee, he is told the budget will not permit hiring any but the lowest skilled employees.

Much has been written and published about inducting and orienting the new employee, but relatively little about the new *executive* and his problems. Many companies lack a planned system for introducing new executives to company officers and other key people on both a social and a business basis. Just as many fail to give new management personnel a follow-up "adjustment" interview by some top executives, a few months after their employment date.

Another problem confronting new executives in many organizations is the lack of ready access to a single source of information regarding the company, the industry, the community and the privileges which go with their jobs. Equally difficult for the newcomer is the situation, all too common in industry, where the older personnel received no advance knowledge or explanation about him, and hence are unprepared to accept him into the group.

Sometimes this becomes a question of the Old Guard and the New. One newly-appointed and dynamic president added a vice president in charge of manufacturing, plus several department heads, without properly notifying the older employees and preparing the ground for the new executives to take over. A stalemate resulted, partly due to resistance against change, partly from the newcomers' lack of clear-cut job definitions. They had only vague ideas of their respective limits and responsibilities. However, the new people enjoyed ready access to the president, and they eventually acquired status and control—but not without invoking considerable dissatisfaction and resentment throughout the executive corps.

POLICY PARTICIPATION HELPS CORRECT FLAWS

It is no coincidence that the impact of executive job dissatisfaction is most severe in companies where little or no use is made of modern conference techniques. The executive who has frequent opportunity to share in policy making, or in major operating decisions, is not apt to become disgruntled. Meetings of this type are more than decision grounds; they also provide the best possible means of two-way communication between executives and the top management group.

There is an important secondary benefit from such meetings. Not only do subordinates look up to their superior because he is admitted to the inner sanctum, they also take pride in being represented and in having a "voice" at high management councils. How important this is we learned from a recent case in which Sales and Accounting were represented on the management committee, but Production was not. A mass inferiority complex permeated the entire plant because of this slight upon its leadership. Whatever went wrong was immediately blamed on this shortcoming. Hard feelings persisted until the production manager was named to the committee.

DIAGNOSIS PRECEDES CURE

As in any morale situation of real consequence, top management's initial step toward eliminating executive job dissatisfaction should be exploratory. Until one knows the reasons why individuals and groups react the way they do, there is little use prescribing a remedy. Marvels have been accomplished through a single shift in high-ranking personnel. In other cases, the complex of misunderstandings and personality conflicts have been so involved that months were needed to straighten out the difficulties.

The depth attitude survey gets closer to the root causes of management problems than would any form of questionnaire or poll. In a face-to-face interview, the respondent can tell exactly what he thinks and why he thinks it, and what he believes should be done to improve the situation. In other words, depth attitude research specifically points a finger at every phase or condition which may need improvement.

When the root causes of executive job dissatisfaction are known, the task of correcting them boils down to the right combination of remedial steps, plus creation or revision of an executive development program that allows for maximum participation in management functions. The fourth ingredient which insures success is more effective communications, in the widest possible sense of the word. The company in the least danger from executive job dissatisfaction is the one whose top management ask, not "Should we communciate this to executives and supervisors?", but "How should we communicate this information for best results?"

Meeting Notices

The National Management Research Committee of S.A.M. will meet Friday, October 31, 1952, at 5 P.M., in Conference Room 7, at the Hotel Statler, New York, N. Y., for the purposes of outlining the Research Projects. The following members of this Committee should be present at this meeting.

Harold F. Smiddy—Chairman
Harvey E. Becknell
F. F. Bradshaw
Bishop Brown
William H. Brush, Jr.
Don Copell
Phil Carroll
Ralph C. Davis
James H. Eddy
Frank E. Fehlman
Howard K. Hyde
David B. Porter
Alex W. Rathe
K. O. William Sandberg

The Rating of Time Study Committee of S.A.M. will meet Friday, October 31, 1952, at 7 P.M., in Conference Room 7, at the Hotel Statler, New York, N. Y.

NMC INTERNATIONAL NEWS

Editor's Note: NMC International News, written by the staff of the National Management Council, will be a regular feature of ADVANCED MANAGEMENT. It first appeared in the July, 1952 issue.

The Society for the Advancement of Management, Inc. is a charter member of NMC, a non-profit, non-political organization founded in 1933 by the leading societies and associations interested in the promotion of the science and art of management. NMC represents the United States in the International Committee for Scientific Management, (CIOS), a coordinating, cooperative society, composed of like associations in twenty other countries.

DR. HUGO DE HAAN TELLS CIOS FUTURE PLANS

DR. HUGO DE HAAN, Secretary-General of the International Committee of Scientific Management (CIOS), announced the plans CIOS has for furthering the management movement in backward areas. These plans were told at the Western Hemisphere Management Conference held in Chicago recently. His speech follows, in part:

". . . It would seem proper and natural that the National Groups of CIOS, after having received most generously from the West, should turn East and carry the torch of management, lighted, into the homelands of Taylor, towards the darkness of the under-developed countries. By what method? By a division of work. Each National Committee of CIOS should undertake to assist one or more under-developed countries or areas. How? In the same way, as they themselves have been assisted through mission trips, visits of experts, study fellowships, documentation, seminaries, etc., on a bi-lateral basis; following the sponsor and ward pattern of cities, universities, hospitals, Red Cross societies in countries who took care of the reconstruction of specific cities, universities, and hospitals in war devastated European areas.

"The CIOS Committees could and should do just the same as has been done for them—form Productivity Centres in specific under-developed countries which they might choose freely, but in common consent — a delicate but not insoluble task.

"There are moral imperatives for such action on the side of CIOS Committees; not only charity from the rich to the poor, but also moral duty; we must give because we have received.

"There are also motives on a much more down to earth basis; lessening the dangerous tensions created by the widening gap of economic levels; building up business relations in growing new markets; making capital investment in those countries remunerative; and all sorts of other enlightened self-interests.

"A last point in favor of CIOS and its member organizations setting up a special program of private technical assistance in under-developed countries is to join the world-wide productivity project of the United Nations and the United States.

"Why should not CIOS be entrusted with the launching and implementation of a *Managerial Assistance Plan* under which all the knowledge on scientific management techniques, as accumulated with our old established groups in 20 highly industrialized countries, should be brought to the areas where scientific management is less or even unknown.

"It is towards such unplowed fields that CIOS should act out in the coming days," . . . concluded Dr. de Haan.

LUNCHEON-DISCUSSION MEETINGS BEGIN AGAIN

The National Management Council's monthly luncheon-discussion meetings were resumed on October 1st, for the 1952-1953 season in the Small Ballroom of the Roosevelt Hotel, 45th Street and Madison Avenue, New York City.

These meetings present persons, well-known internationally, who speak on subjects of interest to members and their friends. The off-the-record policy permits a frankness on the part of the speakers in their own remarks and in their answers to the questions of the audience.

Dr. Hugo de Haan, Secretary-General of the International Committee of Scientific Management (CIOS), was the guest speaker on October 1st. He discussed the plans CIOS has for meeting the problems of management at the international level, and the work of the National Committees now located in some 20 nations throughout the free world.

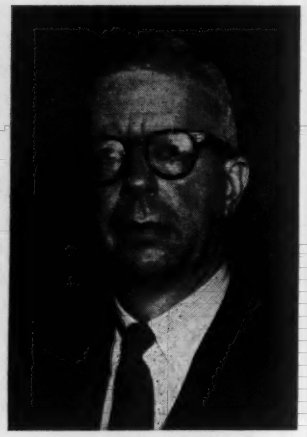
PLANS FOR XTH INTERNATIONAL MANAGEMENT CONGRESS . . . . .

Plans for the Xth International Management Congress under the auspices of the International Committee for Scientific Management (CIOS), to be held in Sao Paulo, Brazil, February 19th through 25th, 1954, with the Brazilian Institute for Management (IDORT) as host, are taking shape.

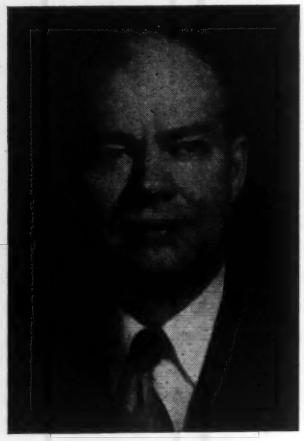
The first meeting of the NMC Travel Committee was held September 4th, under the chairmanship of Allen Ottman, NMC Treasurer and Vice President of the American Hard Rubber Company. The work of formulating travel plans to and from the Congress in Sao Paulo will be the duty of this committee. Travel proposals to meet the needs of those who will attend from the United States will be offered.

The Program Committee is preparing the papers which will be presented at the Congress. The eight papers have been assigned as follows:

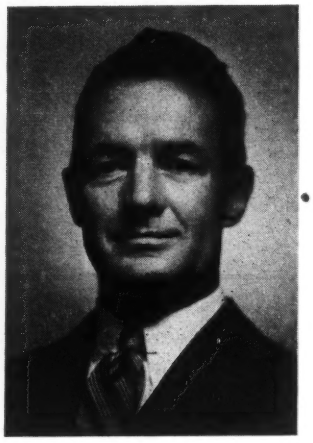
- Management Methods of Improving Human Relations—Belgium
- Direction and Control of Distribution Activities—The Netherlands
- Controls for Top Management Use—Switzerland
- Executive Development and Training —Italy
- Developing an Effective and Cooperative Organization Structure — Sweden
- Policy Making as Affected by Social and Political Considerations — France
- Top Management's Responsibilities Towards Modern Managerial Production Techniques—United States
- Measurement of Productivity — Great Britain



HENRY H. FOWLER



W. PAUL JONES



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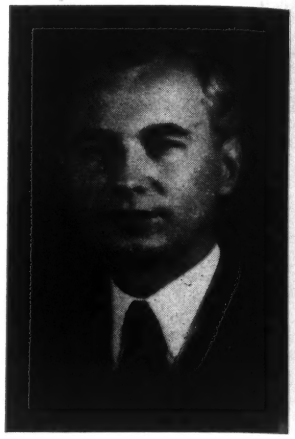


A. M. LEDERER

SAM Annual Conference

THE ANNUAL CONFERENCE to be held Thursday and Friday, October 30-31, at the Hotel Statler, 34th Street and 7th Avenue, New York City, is built around the theme, "Your Keys to Better Management." Outstanding industrial leaders with know-how acquired through years of experience; consultants with extensive experience in the installation of successful management techniques; educators noted for their contributions to the science and art of management; and top government administrators follow one after another in rapid succession on the two-day program.

A special feature of the 1952 Conference will be the Round Table Discussion Groups, scheduled for Friday afternoon, October 31st. Four separate discussion groups have been set up in the fields of Marketing, Production, Design and Labor. Under the leadership of an outstanding executive, each group will discuss basic trends affecting management decisions in the particular field. Group I, dealing with Marketing Trends, will be led by Mr. Al N. Seares, Vice President, Remington Rand, Inc. Mr. Seares is a leader in the marketing field, both as an operating executive and an author. Earl M. Richards, Vice President, Republic Steel Corporation, is leading the discussion on Production Trends in Group II. Trained as an engineer, he has come up the industrial engineering path to his present position. As a Director of a number of organizations, he brings to the group a broad management perspective. Design Trends affecting basic management decisions to be considered by Group III, will have Mr. H. E. Blank, Jr., Editor of Modern Industry as Chairman. Mr. Blank has experience in the editorial field, plus an industrial background with major manufacturing companies which equip him to lead this group. Cyrus Ching, Former Director, Federal Mediation Board, will conduct the discussion on Labor Trends. As he draws on his experience in industry and government, this discussion should prove valuable.

Luncheon Sessions

Luncheon sessions are scheduled on both days of the Conference. At the Thursday Luncheon, two men will deal with the "Trend of Business: A Challenge to Management." Mr. W. Paul Jones, President, Servel, Inc., will discuss this topic from the viewpoint of top management. Mr. Jones possesses a background of marketing, engineering, and production, together with general management experience. Mr. Gilbert MacKay, Senior Partner, Gilbert MacKay Associates, will also deal with the "Trends of Business." Together with his consulting work with major corporations in this country and abroad, Mr. MacKay's experience with top government agencies during the war, and his continued contact with government thinking at present enable him to deal with this topic.

"The International Scene: A Challenge to Management" will be discussed at the Friday Luncheon by Mr. A. M. Lederer, President, National Management Council. World-wide conditions pose complex problems today. Many of these problems can be met as our own management "know-how" is extended beyond the United States.

ANNUAL CONFERENCE COMMITTEE 1952

ELDRIDGE HAYNES, Chairman — Publisher, Modern Industry, New York, N. Y.
RHETT BALL — Vice President, Bruce Payne & Associates, Inc., Atlanta, Ga.
H. E. BLANK, Jr. — Editor, Modern Industry, New York, N. Y.
HENRY A. COZZENS, Jr. — Adjunct Professor, New York University
CARL HEYEL — New York Manager, Day & Zimmermann, Inc., Philadelphia, Pa.
J. ORVIS KELLER — Assistant to President, Penn. State College, State College, Pa.
WILLIAM WITTE — Vice President, James H. Matthews & Co., Pittsburgh, Pa.

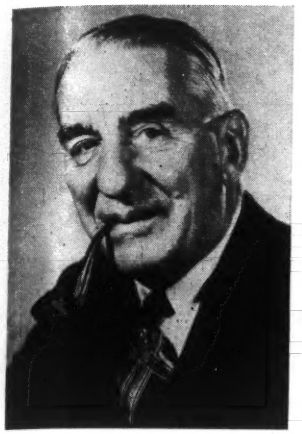
Dinner Meeting

Henry H. Fowler, Director of the Office of Defense Mobilization will speak at the Dinner Meeting, Thursday evening. His subject will be "Government-Industry Relations." Management faces increasingly difficult problems in this area today. More and more management, time, and thinking go into improving relationships between industry and government.

Thursday Sessions

The opening session Thursday morning features an over-all approach to the executive job. Peter F. Drucker, will talk on "The Need for Executive Development — What it Takes to be a Good Executive." He is known for his books and articles in the management field, as a consultant, and is a professor of management in the Graduate School of Business, New York University. "The Art and Science of Communication" will be discussed by Mr. Ralph D. Paine, Jr., Managing Editor of Fortune. The subject of communications has posed major problems in recent years to management. Fortune magazine has helped promote an intelligent approach to this subject. Mr. Paine, Managing Editor of Fortune, brings to this subject both a national and international background. Mr. Frederick Rudge, Partner, Fisher, Rudge and Neblett, Inc. will talk on "Fundamentals of Getting Work Done Through Others." Mr. Rudge is a consultant in the field of executive and personnel relations and has written in these fields.

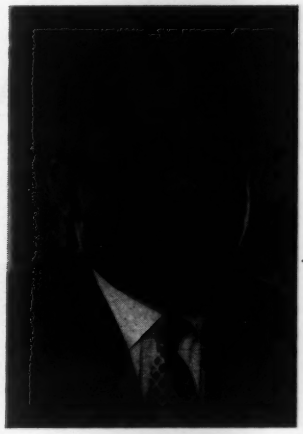
On Thursday afternoon, two Seminars will be held concurrently. Dr. Burleigh B. Gardner, Executive Director of Social Research, Inc., will lead-off with a talk on "Appraising Executive Talent." One will be devoted to a discussion on "How to Train Others to be Good Managers." Dwayne Orton, Director of Education, Internation-



CYRUS CHING

AL N. SEARES

EARL M. RICHARDS



H. E. BLANK, JR.

Conference

al Business Machines Corp. will deal with "Training Supervisors to be Executives." "Teaching the Total Management Function Through Job Rotation and Other Ways" will be considered by Professor Herluf V. Olsen, Tuck School of Dartmouth College. During this afternoon meeting "Appraising Executive Talent" will also come in for discussion.

The second Thursday afternoon Seminar will be built around the theme of "How to Train Ourselves to be Better Managers." Thomas H. Nelson, Partner, Rogers, Slade & Hill will open the meeting with "How to be a Successful Conference Chairman." He will be followed by Mark W. Cresap, Vice President, Westinghouse Electric Corp. who will talk on "New Techniques in Management Planning and Control." Mr. Cresap's present position, combined with his past experience as a management consultant and corporate officer, and his military service during the war enable him to deal with this topic. Professor Erwin H. Schell, Massachusetts Institute of Technology will conclude the Seminar by dealing with the problem of "How to Handle Difficult Personalities." He has written in the field of executive personnel administration and is known to many SAM members.

Friday Morning

"Tools for Executive Development" is the theme for the Friday morning meeting. The use of "Colleges and Universities" for executive development will be discussed by Stanley F. Teele, Associate Dean, Graduate School of Business Administration, Harvard University. William K. Beard, Jr., President, Associated Business Publications will consider "The Business Press" as available tools. "The Management Consultant" as a means of developing executives will be appraised by Donald P. Hess, President, American Bosch Corp. "The Professional Societies" will be represented by Thomas M. Linville, Consultant, Management Consultation Services Division, General Electric Company. Mr. Linville will discuss this executive development tool out of a combination of executive experience, and professional work in various societies, including ASME, AIEE and the New York State Society of Professional Engineers.

WORTH NOTING

To avoid waiting in line and to assure your attendance at all sessions and meals, complete the registration blank on the back cover immediately and return to the Society for Advancement of Management, 411 Fifth Avenue, New York 16, New York. All registrations will be acknowledged and tickets mailed up to one week before the Conference. See discount schedule for advance registration on the back cover blank.

All sessions will be open to members and non-members. Members are requested to place information concerning this program in the hands of other executives and officers of their companies and to invite them to attend.

This conference will be particularly valuable to engineers, government officials, attorneys, and accountants.

Admission to all events by ticket only.

The SAM films on Rating of Time Studies have been adopted by approximately 200 leading industrial firms in this country and abroad, for training in the measuring of "A Fair Days Work," will be shown continuously in Parlors A and B on the mezzanine floor near the Grand Ballroom. You are invited to view these films and evaluate them for use in solving some of your own training and production problems.

Special arrangements will be made for the Ladies attending the Conference in Room 111 and Room 112. There will be a receptionist present. Flowers will be furnished and other provisions made for the enjoyment and comfort of the Ladies.

National and Chapter Officers of the Society will be headquartered in Parlor C.

A blackboard will be posted at the entrance of the Grand Ballroom to page those who have received telephone calls during the Conference.

Reservations will be accepted and confirmed by the National Office of the Society until the rooms assigned for this conference have been exhausted. Those wishing accommodations communicate with Reservation Manager, Society for Advancement of Management, 411 Fifth Avenue, New York 16, New York.

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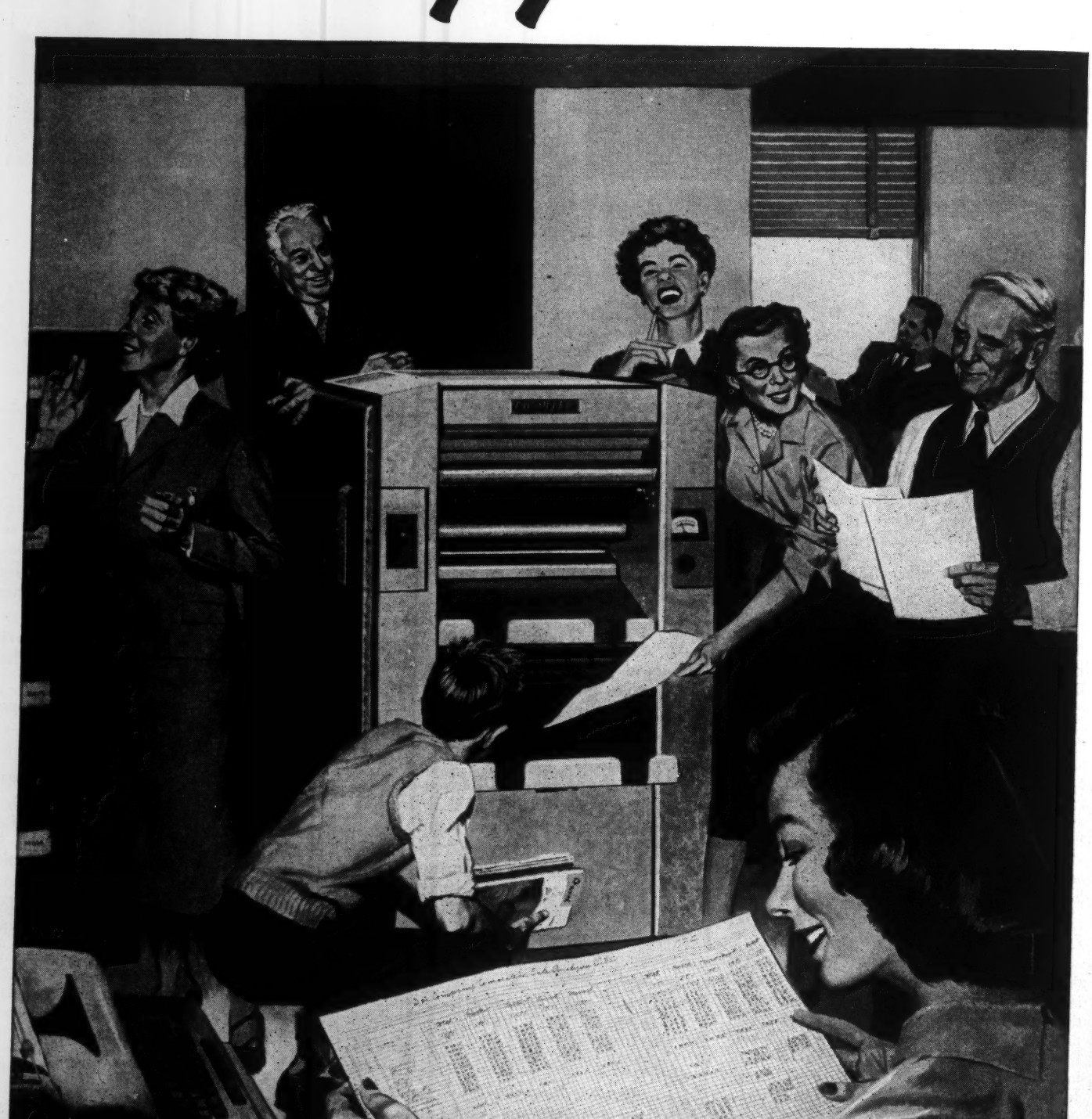

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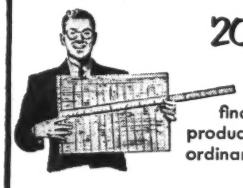

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Replacement Analysis

By E. S. ROSCOE
Department of Industrial Engineering,
Pennsylvania State College

The replacement problems of industry deserve forward looking policies and carefully considered methods of analysis.

THE DEMAND for increased productivity, higher costs for both capital equipment and operations, and higher taxes on profit are matters which complicate the present day problem of equipment replacement and which emphasize the need for accurate analysis. We are indebted to the Machinery and Allied Products Institute (MAPI) for their recent research and interesting new proposal for replacement analysis. Although the MAPI method has been publicized extensively during the past two years, and other methods before that, many executives still do not seem to appreciate that the method used in their replacement analysis is of importance and that different methods have varied degrees of accuracy, consistency, and significance.

The purpose of this paper is to stimulate further interest and discussion of the problem by demonstrating the variety of results obtainable from different methods of analysis. For our demonstration, we have selected an actual replacement problem, submitted through the courtesy of the Gleason Works, Rochester, N. Y. This problem has been worked out by five different procedures, which show the following advantages in favor of the proposed replacement:

I. Amortization rate, 3.1 years.
II. Gain from replacement, MAPI formula, $22,870 (first year).
III. Gain from replacement, average interest method, $43,050 per year.
IV. Gain from replacement, based on in-place value, $34,670 per year.
V. Yield on investment, 24.3%.

If a works manager received all these estimates on this proposed replacement which involved a net capital expenditure of $232,000, how would he interpret the results, and which estimate would be to him the most significant guide for making a decision? How would he reconcile the differences between estimates II, III, and IV? Perhaps an amortization rate of 3.1 years would seem inadequate in view of conservative policy and excess profits tax; but a yield of 24.3% might appear attractive even if reduced greatly by taxation.

ESTIMATE OF SAVINGS IN OPERATING COSTS

All the foregoing methods have one feature in common. They require an estimate of savings in operating cost, less the amount of depreciation which is handled differently in each method. This common factor is the saving of out-of-pocket cost, the same in each method, provided the essential data is acceptable for each estimator. To determine this out-of-pocket saving, it is necessary to include in the analysis only those elements of cost which are affected by the change.

In the following specimen calculations, we shall list first the items which apply to all five methods. Then we shall proceed with the remaining calculations for each individual method. Following these calculations will be a brief discussion and appraisal, as viewed by the writer, covering the application of these methods to the demonstrated problem.

GENERAL DATA AND CALCULATIONS

The proposal: To replace 36 Gleason 15" Generators which are 10 years old with 13 No. 116 Pinion Roughers, new, to handle the same character and volume of work.

Item	*Present*	*Proposed*
First cost installed		$260,000
Anticipated life, years	4(1)	10
Present salvage value	$28,000	
Estimated salvage value at end of life	$ 8,000	$ 26,000
Operating cost factors:		
Direct labor	$86,400	$ 28,800
Indirect labor	12,000	4,000
Fringe benefits	19,680	6,560
Maintenance (2)	3,000	500
Floor space (2)	1,800	650
Power (2)	1,000	500
Taxes and insurance (2)	1,100	9,100
Total (3)	$124,980	$ 50,110
Saving in operating cost (depreciation not included)		$ 74,870

Notes: (1) Values are estimated by the writer based on Gleason estimate of loss in salvage value for first year.
(2) Values are estimated by the writer to agree with Gleason estimates of cost savings.

METHOD I — AMORTIZATION RATE

Net capital expenditure (new investment) = 260,000 — 28,000 = $232,000
Amortization rate = 232,000/74,800 = 3.1 years

To determine the rate of amortization (the pay-off period) is probably the most frequently employed method of replacement analysis. It is the most simple to calculate. To say that a replacement will pay for itself in three years is commonly understood, and many executives require such a statement. Of all the methods demonstrated, it is the least accurate and the most inconsistent.

The "amortization rate" does not take into account the rate of depreciation and a charge for the use of capital. Partly on this account, the practice of this method has resulted in a demand for rapid amortization (two to five years is quite common) often *out of all proportion to the return which would be considered attractive in other forms of investment having equal risk.*

If this method is to be used, it would be possible to classify replaceable capital equipment according to practical depreciation rates and according to rates for the use of capital which take risks and other factors into account. Thus, a series of maximum pay-off periods could be established, one of which may be applicable to the replacement in question. In ordinary practice, the required amortization rate is simply a matter of rule-of-thumb or business judgment on the part of the executive making the decision.

METHOD II — MAPI FORMULA

Salvage ratio = 26,000/260,000 = 10%
Interest rate = 10%
Comparison of Adverse Minima (1)

Item	*Present*		*Proposed*	
Operating inferiority (2)	$74,870			
Loss of salvage value first year	5,000			
Interest 10%	2,800	(3)	10%	
MAPI Chart reading (4)			13%	
MAPI Cost factor (5)			23%	
Adverse minimum	$82,670		$59,800	(6)
Gain from replacement first year			$22,870	

Notes: (1) The *adverse minimum* is "The lowest time adjusted annual average of operating inferiority and capital cost obtainable from the equipment in question." — MAPI manual.
(2) Same as saving in out-of-pocket operating cost in the general calculations.
(3) Based on present salvage value of old equipment.
$28,000 × .10 = 2,800
(4) From chart in MAPI Manual, based on salvage ratio and anticipated life.
(5) Sum of chart % and interest rate. 13% + 10% = 23%
(6) Foregoing percentage applied to first cost of the proposed equipment. $260,000 × .23 = $59,800

The MAPI method was developed under the direction of Mr. George Terborgh. The results have been described in Mr. Terborgh's book, "Dynamic Equipment Policy", 1949, followed by the MAPI Manual, 1950.

The MAPI Method appears to be the most accurate of any method which has been proposed. Probably it is too early to appraise this method objectively from the practical standpoint. Up to now, the procedure has not received general acceptance because of its newness and some practical limitations. Although the simplified procedure specified in the MAPI Manual is not difficult to apply, it is difficult to comprehend. Few persons can be convinced of the method's accuracy or the significance of results without a study of Mr. Terborgh's book, and a cursory reading is not enough.

The theory and development of formulae involve concepts which are quite new to the average executive, and the terminology is quite original. The term "adverse minimum" was defined in Note (1) following the calculations. We shall not attempt more than a very brief explanation of the theory and application. The adverse minimum has the following significance:

For the old equipment, which Mr. Terborgh calls "the defender", it represents the cost (including interest) for retaining that equipment in service. For the new equipment, "The Challenger", it represents the comparable cost plus interest. The difference between these adverse minima is the gain (or loss) resulting from the replacement.

The adverse minimum of the challenger takes into account the diminishing advantage of that equipment based on time, and it is a present worth calculation reduced to an annual average. To be most accurate, a formula is required for each replaceable property, which is based on past experience with similar or identical types of equipment. The formula is complicated and its factors depend on extensive equipment records. The simplified MAPI procedure, which we demonstrated, makes use of a set of curves (Note 4) which represents an approximation of the formulae. To the chart percentage is added the interest rate (the charge for the use of capital), and the combined percentage is then applied to the first cost (the investment) to determine the adverse minimum of the proposed replacement.

On the other hand, the adverse minimum of the old equipment is derived more simply, as has been demonstrated. In this case, the operating advantage of the new equipment (the annual out-of-pocket savings) is treated as a charge for the continued use of the old equipment. It is interesting to note that the authors of this procedure apply a conventional method of appraising the old equipment, but consider that the more complicated formula is necessary for the proposed replacement, probably on account of its longer expected life and the more important effect of the time factors.

Certainly the MAPI Method deserves serious consideration by those who follow the argument developed in the Terborgh book, or who are willing to accept unchallenged the procedures described in the MAPI Manual. As our example demonstrates, the MAPI Method can present a good project at a disadvantage compared with the other methods, if the significance of the results are not clearly understood by the executive responsible for the decision.

METHOD III — BASED ON AVERAGE INTEREST

Operating cost less depreciation	$124,980	$50,110
Depreciation (1)	5,000	23,400
Average interest at 10% (2)	2,050	15,470
Total op. cost plus interest	$132,030	$88,980
Net advantage per year		$43,050

Notes: (1) Straight line method. In the old equipment, based on salvage value, e.g., (28,000 — 8,000)/4 = $5,000
(2) *Average* interest, based on present value (A), ultimate salvage value (S), expected life (n), and interest rate (i)
Average interest = $i(A—S)(n+1)/2n+iS$
In this case:
$.10(28{,}000—8{,}000)(\frac{5}{6})+.10\times 8{,}000=2{,}050$

The average interest method has been recommended for many years by several engineering economists, particularly Professors Eugene L. Grant and P. T. Norton. The principal features of this

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method relate to depreciation and interest calculations. Depreciation of present equipment is based on present salvage value. In common with the other methods herein described, it disregards the bookkeeping record, and adopts an up-to-date estimate of depreciation factors.

Present salvage value of old equipment is used here as the basis for interest (as well as depreciation), on the grounds that this figure represents the amount of capital which could be available for some other investment, such as the replacement, if the management so desired. The use of *average interest* assumes that the charge for the use of capital should be averaged over the estimated service life of the equipment, based on investment which declines progressively as depreciation takes place. This declining valuation is also applied in the MAPI formula with this difference: the average interest method assumes conventional straight line depreciation; the MAPI method bases its valuations on past experience with the type of property in question.

VALUATION DISREGARDS BOOK VALUE

One feature of the interest calculation recommended by Grant seems unnecessarily complicated. The realistic valuation of the present equipment disregards the bookkeeping records (book value); but the Grant calculation assumes that valuation diminishes in abrupt annual steps as in accounting practice, which results in the formula of Note (2). Actually the value of equipment declines continuously throughout the year, and the writer suggests that the formula be simplfied as follows: Average interest = $i(A+S)/2$.

It may also be questioned whether the calculations for the proposed equipment should extend beyond the estimated remaining service life of the old item, since comparison may be considered invalid after the old asset expires and replacement becomes madatory. The proponents of the method demonstrated believe that the interest charge should be spread over the entire anticipated life of the replacement. On the other hand, executives are most interested in the cost effects of the more immediate future, hence the MAPI method derives gain from replacement for the *first* year, and Method IV applies its expected return (interest) to the current valuations.

METHOD IV — BASED ON IN-PLACE VALUE

Item	*Present*	*Proposed*
Present salvage (market) value	$ 28,000	
Cost of installation and transportation today (1)	4,000	
In-place value	$ 32,000	
Operating cost less depreciation	$124,980	$50,110
Depreciation (2)	6,000	23,400
Expected return at 10% (3)	3,200	26,000
Total operating cost plus expected return	$134,180	$99,510
Net advantage per year...		$34,670

Notes: (1) Estimate by writer.
(2) Straight line method based on "in-place value".
e.g. (32,000—8,000)/4=$6,000
(3) Same as "interest", based on in-place value for old equipment.
e.g., $32,000 × .10=$3,200

Professor C. E. Bullinger believes that a replacement analysis, to be complete, requires more than one method or formula for evaluating present and proposed installations. See Professor Bullinger's book, "Engineering Economic Analysis." Limitations of space and data have influenced the writer to confine this demonstration to the method which seems most significant, the use of "in-place" value as a basis for depreciation and expected return (interest). "In-place value" may be defined as the present market value plus transportation and installation charges necessary to place the equipment in service. This investment value of present equipment is comparable with that of the proposed equipment, age and condition considered. While the differences in result occasioned by the use of in-place value rather than salvage value is minor in most comparisons, there are types of equipment where installation cost is relatively high. Conversely, removal cost can result in a negative net salvage value even when the equipment is relatively new and in good condition.

CALCULATION OF INTEREST OR EXPECTED RETURN

A major difference between Methods III and IV lies in the calculation of interest or expected return. Professor Bullinger's expected return is based on the present value of the investment and neglects the future decline of value. Those who favor average interest would claim that Method IV penalizes the replacement unduly; but it should be noted that a comparatively high interest charge tends to offset lack of conservatism in straight line depreciation and uncertainty in estimates of future costs such as maintenance.

METHOD V — YIELD ON INVESTMENT

Item	*Present*	*Proposed*
Operating cost less depreciation	$124,980	$50,110
Depreciation (1)	5,000	23,400
Total operating cost	$129,980	$73,510
Net saving per year		$56,470
Yield on investment (2).		24.3%

Notes: (1) Straight line method. For old equipment, based on present salvage less ultimate salvage values. e.g., (28,000—8,000)/4=5,000
(2) Yield. The ratio of annual savings and net capital expenditure e.g., 56,470/(260,000—28,000)=.243

The objective of this method is to estimate the yield (the rate of return) on the capital cost of making the replacement.

To top management and financiers, yield is a significant gage for the attractiveness of investment, risk and other factors considered. The yield from a proposed investment can be compared with the minimum yield (the expected yield or interest rate) which should be exceeded if the proposal is to merit consideration.

The supporters of the MAPI method argue that yield or rate of return is no more adequate for appraisal of a replacement than the amortization rate. It should be noted that the MAPI method, in common with Methods III and IV, employs interest, which may be considered a minimum rate of return below which no advantage is realized. The yield demonstrated in Method V does disregard the declining value of the investment during its life, and it tends to be conservative on that account.

Yield is also a figure to which the effect of the profit tax may be applied directly, provided the depreciation assumed for the present and proposed equipment does not disagree greatly with the accounting records. Thus, in our example, a tax rate of 50% will reduce the effective yield to 12.15% or one half the gross amount.

The foregoing comparison of methods of analysis has neglected some of the procedures recommended by Professor Bullinger and others. Space does not permit a discussion of all these methods; nor can we do more than invite attention to several other important factors in the

replacement problem. Savings per *unit* of production are important when the capacity of the new equipment differs from that of the old, and when changes in unit selling price can be considered. The selection of a proper value for interest or expected yield is a problem in itself. This "interest" is not the prevailing rate for borrowed funds, it is a charge for the use of capital and a rate of return necessary to justify such investment, risk and other factors considered. Government taxes on profit and capital gains seriously affect the net gain from a proposed replacement. Intangible factors are also controlling considerations in this as in other economic and business problems.

CONCLUSION

A major factor in American industrial leadership is the continual replacement of the old and obsolete in favor of the new and more productive. Although it is not difficult to locate active equipment thirty to fifty years old, written off on the books years ago, the modern successful enterprise can't afford to lag behind the procession. The replacement problems of industry deserve forward looking policies and carefully considered methods of analysis.

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Washington Chapter President Named Under Secretary of the Interior

Vernon D. Northrop has been appointed Under Secretary of the Interior by President Truman. Mr. Northrop has been serving as the first Administrative Secretary of the Department of the Interior.

This choice of Mr. Northrop as a top executive in the Federal Government followed closely his election as President of the Washington Chapter of the Society of the Advancement of Management.

The recent appointment of Mr. Northrop as Under Secretary, however, came as a surprise to most of his colleagues and friends. Generally the position of Under Secretary in an executive department is considered in the same category as that of the head of the department. Appointment to it is only infrequently made from civil service career officials. Mr. Northrop, on the other hand, has been in the Federal Government 29 years and is considered a leading exponent of career federal service.

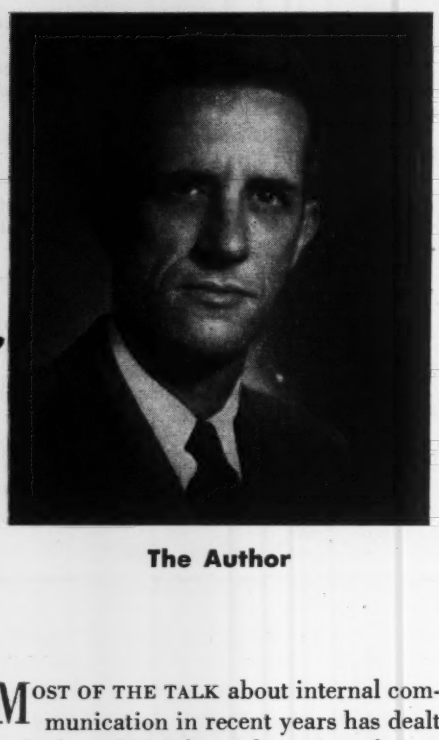
A principal recommendation of the Commission on the Organization of the Executive Branch of the Government (Hoover Commission) was the creation of the position of Administrative Assistant Secretary. The purpose of this recommendation was to apply the rank and authority of an Assistant Secretary to the development and control of the administrative management functions of an executive department. The Hoover Commission listed these functions as budget, finance, personnel administration, property management, and general housekeeping, and the Administrative Assistant Secretary was to be given top management responsibility for their direction and supervision.

Concurrent with the adoption of other recommendations of the Commission by the Department of the Interior in Reorganization Plan No. 3, Secretary of the Interior Oscar Chapman established the position of Administrative Assistant Secretary and appointed his then Executive Officer, Mr. Northrop, to this position. Since that time similar positions have been created in other departments and career management officials appointed to fill them.

Mr. Northrop first entered the federal service as a clerk in the House of Representatives. He has also served in the Department of Commerce, in various emergency relief agencies, and with the War Manpower Commission. In 1943 he entered the Department of the Interior as Director of Budget and Administrative Management. This assignment covered responsibility to the Secretary for the budget, finance, and administrative planning activities of the Department. In December 1949 Mr. Northrop was appointed Executive Officer and in the following year, Administrative Assistant Secretary. In this position he was a "Career Assistant Secretary."

He is being replaced in the latter position by Mr. Otis Beasley, present budget officer of the Department.

Mr. Northrop has been in the federal civil service for 29 years and his career again proves the fact that good management is good politics as well as good service to the government.



The Author

Organization Manuals Improve Communication

By LAWRENCE L. PARRISH
Head, Department of Industrial Administration,
School of Business Administration,
University of Connecticut

Effective communication unlies successful organization planning and control. Dr. Parrish shows how the organization manual serves to improve organization communication.

MOST OF THE TALK about internal communication in recent years has dealt with the subject from the point of view of what might be called "operational" communication. That is, it has considered the continuing, day-to-day flow of orders, questions, information, ideas, and suggestions within the company structure. Obviously, good communication of this type of material is of vital importance to successful business operation, and deserves full examination and study. However, there is another phase which has been largely neglected in the literature—the communication of basic information about the organizational structure, organizational relationships, and duties.

In order to appreciate the importance of good communication of this latter type of information, it is necessary to recognize, first of all, that to achieve efficiency in a group endeavor, a high level of coordination or teamwork must be reached. It has become a matter of fairly common belief that the coordinated effort of teamwork cannot be imposed by management from above but must in large part be the result of willing and intelligent action on the part of members of the group. They must, in other words, *want* to coordinate their actions and *know enough* to be able to do it. However, no matter how strong their desire to coordinate their actions, they cannot do so with greatest effectiveness without essential information which can only be provided by their leaders; for most effective teamplay, each member of a group must know the enterprise's objectives or goals; he must know the duties, responsibilities, and authority of his position; he must also know something (the more the better) about the duties, responsibilities, and authority of other position, particularly those which border on his, and with which he has the most contact. If members of the organization are not properly informed concerning these matters, their efforts at self-coordination will be relatively fruitless; the job of coordination will thus be thrown more on the shoulders of managers with less effective results.

This article is intended to examine and evaluate some of the methods employed in the communication of basic organizational data and to suggest the advantages of organization manuals for such communication. It will be limited, of course, to communication *within* the firm.

PRINCIPAL METHODS OF COMMUNICATION

Basically, there are three principal methods of communicating the type of material under discussion:

1. Word-of-mouth
2. Organization Charts
3. Organization Manuals

It is probable that a combination of two or all of these methods will be found in many situations. Certainly word-of-mouth will always be used to some extent; whether charts or manuals are also employed will depend on conditions within the particular company.

WORD-OF-MOUTH

Traditionally, organizational information has been passed on by word-of-mouth as a phase of the training of each new employee, whether at the executive or worker level. The new recruit meets briefly with his superior and receives a word-picture of his position. This picture may include a statement of the over-all function or purpose of the position and more or less description of the actual duties of the job. It is not likely that there will be much discussion of the authority and responsibility of the position in relation to other positions. Too often, the superior will be interrupted by other pressing matters and either turn the new man over to someone else, for further (and possibly contradictory) indoctrination or tell him to go to work and see how it goes—he can always come back for more information when he finds out what he needs to know. If the boss and subordinate do have subsequent effective meetings, this technique may be good. After all, there is too much content and too many relationships in any job to be fully understood and absorbed in one session, even a long one. But there are dangers in the practice too, for the subordinate may hesitate to check with his superior too often for fear of making a bad impression. Or he may rely on his associates for information

concerning his job and in this manner get information which may or may not be accurate or complete.

Too many members of management have had such a brief introduction to their jobs by their new superior, who then left them to discover the full extent of their duties and the exact nature of their relationships in whatever way they could. No wonder that a man will often state that it took him months, or even years, to "get his feet on the ground" or to find out where he stood in a new job. If all members of a management group are given only a partial definition of the duties and relationships of their own positions (and no picture of other positions) and left to fill them out themselves, it is not surprising that friction, conflict, and hard feelings, rather than smooth coordination, result.

PUT IT IN WRITING

This approach to the dissemination of the "ground-rules" of organization is similar to the process so often followed in teaching a new card game, such as bridge or canasta. The players sit down at the table and someone begins to explain the nature of the game to the novice. He outlines the major rules and procedures, but sooner or later, a point is always reached when he says, "Well, let's start, you'll see how it goes, and we'll take up the questions which come up as we play." This is a sound approach, since the learner cannot absorb everything at once, and some points have no meaning for him until he runs into them in actual play. Then he can more readily grasp and retain the necessary information. There is an essential difference, however, between this and the organizational situation in which the same approach is adopted; the learner and the teacher are together constantly as new situations are met and new information required. Any omissions in the data originally imparted are likely to be brought to light as the game proceeds; misunderstandings can be rectified.

Suppose that the superior recognizes the inadequacy of this partial job of communication and attempts to describe essential job characteristics more fully and carefully, but still by the spoken word. In other words, he tries conscientiously to do a more complete job. Will results be satisfactory? Undoubtedly they will be better, but the chances are that they will be far from perfect. For one thing, the duties and relationships of the various positions are often too complex to be thought through and defined successfully without the discipline involved in writing them down. Therefore, the information to be communicated is weak to start with. Next, the superior may not be an effective teacher; he may fail to put across even the material which is available. Finally, even though the superior may succeed in giving the new subordinate a complete picture of his duties and relationships, it is likely to be so complex and voluminous that only part of it can be retained. With no written reference to return to for later review, the subordinate fails to get the complete picture of his job. His ability to coordinate with others is reduced, and to the extent that all members of the group have incomplete or erroneous knowledge of their duties and relationships (and those of others) coordination throughout the enterprise becomes more difficult.

It would not be wise to leave this type of communication without reference to its desirable aspects. Generally speaking, face-to-face discussion gives greater opportunities for understanding than total reliance on the written word. Unforeseen questions arise and can be answered; illustrations and examples, which are likely to be ruled out in the terse written record of organization, can be injected; the two-way flow characteristic of discussion leads to more effective learning. There is no intention, therefore, of suggesting that word-of-mouth instruction has no place in the problem under discussion. It is intended only to bring out its weaknesses.

ORGANIZATION CHARTS

Charts may be of considerable help in conveying organizational data. Their great value is the value of any picture or chart—assisting comprehension by enabling the initiate to *visualize* the structural relationships of the organization. Thus they perform a function which words alone cannot. The relationships of individuals and groups even in small enterprises are numerous and complicated, and any device which makes it possible to "see" even a part of these relationships is of definite usefulness.

However, in spite of their usefulness, organization charts by themselves are definitely and severely limited in their ability to convey the *whole* message necessary to the proper indoctrination of a new member of a group. They must be used in conjunction with word-pictures—written or oral descriptions of the duties and relationships characterizing the various positions in an organization structure. This is true because, when you come right down to it, the typical organization chart tells practically nothing about the duties of a position. Whatever job content comes to mind when one reads the title of a position on a chart comes from somewhere outside the chart, not the chart itself. Deductions concerning the duties of a position depend upon the experience and training of the individual reading the chart.

Moreover, the typical chart, although helpful in picturing relationships, suggests only a fraction of the relationships which actually exist and tells little about the nature of the relationships which

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tells how on pages 16 & 17

it does picture. It does show where direct superior-subordinate relationships exist, but the *implications* of such a relationship are not touched upon by the chart. A person's interpretation of this relationship depends, again, upon his experience and training.

Of equal seriousness, the chart usually does not attempt to reveal either the existence or the nature of the troublesome and complex relationships of the specialists (the so-called "staff") to the rest of the organizational components. Perhaps the viewer of the chart calls up a mental picture of the relation of the inspection department (for example) to the producing departments, but that too has come from somewhere outside the chart.

Thus we see that the chart needs a lot of interpretation regarding job duties and relationships. It has been suggested that this interpretation will vary from individual to individual according to his experience and knowledge. An executive of a given company would no doubt have a much more accurate understanding of his organization from looking at a chart of it than would a complete stranger to the company. This results from difference in background but is also partly the result of lack of standardization of charting techniques and terminology.

This susceptibility to diverse interpretation drastically reduces the effectiveness of the organization chart as a sharp, precise tool of communication. It may, as a result of this characteristic, result in confusing rather than clarifying the understanding of an organization, although this weakness may be largely overcome if the chart is used only to supplement word descriptions of job content and relationships.

ORGANIZATION MANUALS

If it is granted that the spoken word and the organization chart are both highly imperfect means of communicating vital information about jobs to the holders of those jobs, it should be obvious that a more effective method should be sought. The organization manual, although subject to weaknesses of its own, would appear to provide an answer. It consists of written word pictures of each position, presenting a complete outline of the duties and relationships in each case. It ordinarily contains organization charts covering the whole structure and segments of the whole. Its advantages concern both the *definition* of duties and relationships and the *communication* of this information.

In the mere process of constructing manual forces, the organizer must give careful thought to the problem of defining duties and relationships. As the manual is developed, it is probable that situations will be discovered where there is overlapping of jobs or where essential tasks are not assigned to any position. Consultation with various members of the group concerning a given position with which their jobs come into contact, is likely to bring to light misconceptions and misunderstandings concerning duties and relationships, not to mention additional information. Working out disagreements concerning the characteristics of the job in question produces a final definition of the position which is almost certain to be superior in accuracy and breadth of content to a description existing only in the mind of an executive who has not given it the attention it deserves. One well-known company has made a practice of holding conferences, attended by interested executives, off company premises to hammer out particularly difficult descriptions. In some cases several days have been required to clarify completely the definition of one job! It seems clear that the process of constructing the job definitions for a manual is bound to produce worth-while results in better definition of duties and relationships.

The manual should also contribute significantly to the effectiveness of the communication of organizational information. In the first place, the consultation and discussion associated with the development of the descriptions is an important step in the communication process. It makes for greater understanding and acceptance of organizational arrangements by those who have participated in the process. In the case of persons who have not had a hand in constructing the manual, communication is also made easier. The superior has a complete picture of the job to show, and explain, to the subordinate. He is not likely to overlook anything in outlining the job of the new recruit. The subordinate may also refer to the manual at the time of original exposure to his new position and subsequently. If all material could not be grasped at the first meeting with his superior, he can review it in the manual, finding there a consistent, standardized, and accepted record. Not only is each member of the organization more likely to have a thorough understanding of his own job—he can also secure authoritative descrip-

HIGHLIGHTS OF THE AUTHOR

Dr. Parrish is a graduate of Swarthmore College and holds a Ph.D. from the University of Pennsylvania. He has taught at the Wharton School of Finance and Commerce, the University of Pennsylvania, and the School of Commerce, Northwestern University.

He has worked with the federal government in industrial research, held a summer fellowship with the General Motors Corporation, and carried on an industrial consulting practice. Dr. Parrish was associated with the firm of Currie and Gherman in Chicago.

He is a member and director of the Hartford Chapter of S.A.M. and a member of the Planning Committee for the Annual S.A.M. Time Study and Methods Conference.

tions of the duties of other jobs and the relationships existing between them and his own.

Obviously, through the greater accuracy and efficiency of communication, time will be saved and quality and quantity of performance increased. A man who secures a good understanding of his position is going to make fewer mistakes, waste less time and resources, and create less friction than one who does not understand the organizational environment in which he is working. His time, and that of his superior, will be less taken up in conferences designed to supplement information and correct misconceptions flowing from previous meetings which were only partially successful.

Naturally, there are weaknesses and objections to organization manuals. They are frequently expensive to develop; they are expensive to maintain—changes in organizational structure must be reflected in the manual or it soon becomes obsolete and, therefore, worse than useless as a reference.

But even if one believes the advantages sufficient to justify the cost, there are other potential dangers in organization manuals. For example, it has sometimes been felt that once a manual was constructed, it became the model to which the structure was required to conform, rather than the contrary. In other words, the organization might tend to "freeze in the posture in which it was caught at the time the manual was developed. Since flexibility in response to changing conditions and needs is so important in organization, this danger is one against which a company with a manual must be vigilantly on guard.

In addition, some managers fear that members of an organization which has written descriptions of job duties and relationships will be prone to regard the functions and activities so described as fixed maxima to the demands of their jobs. They may tend, in other words, to fulfill the requirements expressed in the manual but to go no further. If this should occur, the extra initiative and energy possessed by some members might not be tapped for the good of the enterprise. Teamwork might suffer. This also must be guarded against carefully.

SUMMARY AND CONCLUSIONS

A high level of teamwork or coordination is necessary for efficient operation. Teamwork requires that members of a group, if they are to coordinate their own activities with those of others, must have accurate and complete information about their own jobs and the jobs of others; ineffective communication of such information reduces their ability to coordinate. Communication by the spoken word or by charts is generally imperfect. Organization manuals overcome many of the weaknesses of the other means of communication, although they too have some drawbacks.

Even manuals, however, are not strong enough to carry the important burden of communication alone. They should be used in conjunction with charts and should be supplemented by face-to-face discussion between the executive and the newly appointed subordinate. Unfortunately, word-of-mouth and charts have too often been used without the aid of manuals. If this third medium be added, guess work and confusion should be reduced, time should be saved, and coordination raised to a higher level.

Additions to the Staff of ADVANCED MANAGEMENT

Professor Edward Schulz has been appointed Editor of ADVANCED MANAGEMENT, effective with this issue. This appointment marks a return to the former SAM policy of an Editor engaged in management or academic activities who can devote sufficient time to the magazine to maintain and advance its leadership in the field of management.

He is Associate Professor of Management at New York University School of Business where he teaches courses in organization, management, policy and personnel administration. A graduate of the University of Chicago, he did graduate work in management at Northwestern University and Columbia University. While at Northwestern under Professors William R. Spriegel and Henry P. Dutton in 1938-40 he became active in SAM. In 1948-49 he served as Assistant Vice President — Professional Contacts under the Vice President — Management Research.

He has worked with Booz, Allen & Hamilton, Chicago & Southern Airlines, Inc., United States Cartridge Company, Chicago Graphic Arts Federation in management and personnel positions. Since 1947 in addition to his teaching he has done consulting work in organization for such companies as RCA laboratories Division, and Home Life Insurance Company.

With W. R. Spriegel he is co-author of *Elements of Supervision*, a widely used text in supervisory training. He was a delegate to the IXth International Management Congress at Brussels.

Mrs. Adele Rocker is our new Editorial Assistant. She started her magazine incubation period at Bergen College, Teaneck, N. J. As Associate Editor of *The Saga*, the College yearbook, she won the title of "Nation's College Yearbook Editor" in a national contest. Later, she was a reporter on the *Bergen Evening Record*, Hackensack, N. J. She has been employed on several New York magazines, as a writer and production editor.

SOCIETY NEWS

STUDENT NEWS

The Student Chapter President's Conclave will meet October 31, at 7:30 P.M., Hotel Statler.

Faculty Advisors and Student Chapter Coordinators Breakfast Round Table will be held at 7:30 A.M., October 31, Hotel Statler.

• ALLENTOWN The members heard Don F. Copell, Vice President of Engineering and Personnel Training of Wagner Baking Company and S.A.M. National Vice President of Membership, speak on the general subject of a pattern for sound industrial engineering administration. The regular monthly round table meeting was held on October 27.

• ASHEVILLE On October 7, Wade Lindsay discussed the subject of "What Can M.T.M. Do for Western North Carolina Industry". Al Ramond spoke on the subject of "Work Measurement and Incentives" on October 16th.

• ATLANTA The Chapter heard Edward W. Jochim, General Manager, Chicago Plant and member of the Board of Directors of the Personal Products Corporation of Chicago, Ill. and National President of S.A.M., on the subject of "S.A.M.'s Contribution to Management." This occurred on October 9.

• BIRMINGHAM P. O. Davis, Director of the Extension Services at the Alabama Polytechnic Institute was the speaker for the October 3rd meeting. His subject was "Some Impacts of Industrialization on Rural Alabama."

• BOSTON "A New Look at Industrial Development" was the subject of Robert H. Ryan, Executive Director of Lawrence Industrial Development Commission on Oct. 2.

• BRIDGEPORT On October 14th, A. E. Diem of the Dictophone Corporation addressed the Chapter on the subject of "Methods and Importance of Developing a Sales Forecast."

• CHARLOTTE A series of Harvard Case Studies and a ten weeks' Foremen's Institute will begin during the month of October. Virgil Rowland of the Detroit Edison Company was the speaker for the monthly meeting held on October 16. His topic concerned "Management Development".

• CHICAGO The Chapter heard R. W. Peach, Quality Control Engineer with Sears, Roebuck and Company, speak on the subject of "How Do You Establish and Maintain Effective Inspection Methods and a Quality Control System?".

• CINCINNATI The members heard S. F. Leahy, Director of Employee Relations of the Detroit Edison Company on October 2. His topic was "Participative Management—The Solution to the Human Relations Problem".

• CLEVELAND On October 6, the Chapter conducted a Management Clinic on Administrative Expense, Control and Deduction.

• DAYTON Allan H. Mogensen, Director of Work Simplification Conferences, will conduct a Work Simplification Clinic in Dayton, on November 11 and 12.

• DETROIT "The Development and Application of Industrial Engineering Policies" was the subject of R. Conrad Cooper, Vice President of Industrial Engineering of The United States Steel Corporation, on October 7.

• GREENSBORO On October 14th, Captain T. S. Whitsel, Vice President of the Union Special Machine Company spoke on the subject of "Economic Machine Replacement". Floyd Mehan of Anvil Brand, Inc. served as chairman.

• GREENVILLE The Chapter discussed the subject of "Effective Communications in Business" under the leadership of Edward W. Jochim, National President of S.A.M., on October 8.

• HUDSON VALLEY The Chapter is presenting two seminars in time study. The introductory Time Study Group will meet, beginning tentatively, on October 13 and the Advanced Time Study Group on October 20. R. A. Davis and A. E. Nyquist, both of General Aniline Works, will conduct these sessions.

• LANCASTER Dr. C. Canby Balderston, Dean of the Wharton School of Finance and Commerce of the University of Pennsylvania was the guest speaker on October 21.

• MILWAUKEE On October 9 Don F. Copell, S.A.M. National Vice President of Membership, discussed the subject of "Simplification Is a Tool for Top Management". Dr. Lillian Gilbreth, distinguished member of S.A.M., spoke on the topic of "Something We Can Do," on October 15.

• MONTREAL On October 8, Hilton K. Wilby, Assistant to the Vice President of the Steel Company of Canada instructed the Chapter on "How Our Business Systems Operate".

• NEW BRUNSWICK The members heard on October 16th, Robert S. Rice of *Factory Management* and *Maintenance* discuss "Ratio Delay Analysis".

• NEW YORK CITY The Time Study Group under the Special Interest Group activity, will present a ten-weeks course on Work Factor Predetermined Time Values. The lecturer for the course is S.A.M. member John Feltman, Chief Industrial Engineer with the Conmar Products, Inc. They contemplate a similar course in the spring on M.T.M.

• NORTHERN NEW JERSEY Dr. Lillian Gilbreth, internationally famous as an engineer, teacher, author and speaker discussed the subject of "Teamwork Today" on October 2. William O'Neill was the meeting chairman.

• PHILADELPHIA The Chapter heard Ben S. Graham, Chairman of the Future Demands Committee of The Standard Register Co., on the subject of "Paper Work Simplification".

• PITTSBURGH The program on October 16th concerned the subject of "Scientific Management in Government".

• READING Frank A. Beebe, Jr., will hold a lecture course in Motion-Time Standards on every Tuesday evening from September 16 to December 16.

• RICHMOND The guest speaker for the monthly meeting was D. B. Kirk of E. I. DuPont, Chambers Works, whose topic was "Increased Efficiency Through Production Planning".

• TRENTON The members were instructed by Gilbert V. Bloom, Chief Job Analyst of The Atlantic Refining Company on October 21. Mr. Bloom's subject was "Analyzing Today's Job Evaluation Plans".

• WILMINGTON The October meeting was concerned with "How To Measure Overall Plant Progress" by William Langenberg, Manager of the Cost Division of Johnson & Johnson, Inc.

MEETINGS OF NATIONAL OFFICERS

November 1, 1952	Board of Directors
February 7, 1953	Executive Committee
April 18, 1953	Board of Directors
May 16, 1953	Executive Committee
June 27, 1953	Board of Directors

PAST PRESIDENTS OF S.A.M.

ORDWAY TEAD, *Editor of Social and Economic Books, Harper & Brothers, New York, New York* (1936-37)

WILLIAM H. GESELL, *Vice President, Lehn & Fink Products Corporation, Bloomfield, New Jersey* (1937-39)

MYRON H. CLARK, *Management Consultant, Boston, Massachusetts* (1939-41)

J. KEITH LOUDEN, *Vice President, York Corporation, York, Pennsylvania* (1941-42)

PERCY S. BROWN, *Retired New Hampton, New Hampshire* (1942-44)

RAYMOND R. ZIMMERMAN, *Management Development Branch, Productivity and Technical Assistance, Mutual Security Administration, Washington, D. C.* (1944-46)

HAROLD B. MAYNARD, *President, Methods Engineering Council, Pittsburgh, Pennsylvania* (1946-47)

WILLIAM L. MCGRATH, *President, The Williamson Heater Company, Cincinnati, Ohio* (1947-48)

CHARLES C. JAMES, *Associate Counsellor, Stevenson, Jordan & Harrison, New York, New York* (1948-49)

DILLARD E. BIRD, *Management Counsel, Westfield, New Jersey* (1949-51)

LEON J. DUNN, *Assistant to the Executive Vice President, Veeder-Root, Inc., Hartford, Conn.* (1951-52)

CHAPTER STANDINGS
As of September 1, 1952

MEMBERSHIP		CHAPTER PERFORMANCE AWARD	
New York	422	N. New Jersey	415
Chicago	321	Boston	300
Philadelphia	304	Hudson Valley	290
N. New Jersey	292	Milwaukee	290
Cleveland	280	Asheville	180
Cincinnati	274	Los Angeles	170
Washington	227	Bridgeport	170
Boston	210	Chicago	161
Pittsburgh	201	Philadelphia	150
Detroit	189	Lancaster	150
Los Angeles	145	Pittsburgh	150
Milwaukee	140	Washington	130
San Francisco	114	Allentown	130
Greensboro	106	New Brunswick	130
New Brunswick	103	Trenton	120
Indianapolis	101	Birmingham	110
Dallas	98	Charlotte	110
Lancaster	98	Detroit	110
Dayton	93	Greensboro	110
Asheville	90	Baltimore	100
Hudson Valley	85	Montreal	100
New Haven	85	Cleveland	80
Baltimore	83	Dayton	70
Montreal	64	Atlanta	60
Worcester	64	Richmond	60
Bridgeport	63	Cincinnati	55
St. Louis	61	San Francisco	50
Charlotte	60	Greenville	50
Allentown	58	New York	50
Providence	58	Indianapolis	40
Columbus	52	Dallas	40
Hartford	52	Providence	40
Louisville	51	Louisville	40
New Orleans	51	Worcester	40
Central Penna.	50	Portland	35
Trenton	50	Central Penn.	20
Atlanta	48	Columbus	20
Wilmington	48	Reading	10
Knoxville	47	Baton Rouge	—
Birmingham	46	Central New York	—
Greenville	43	Hartford	—
Manchester	42	Kansas City	—
Wilkes-Barre	42	Knoxville	—
Reading	40	Manchester	—
Richmond	39	Nashville	—
Twin City	36	New Haven	—
W. Massachusetts	36	New Orleans	—
Baton Rouge	35	St. Louis	—
Portland	35	Stamford	—
Central New York	31	Twin City	—
Kansas City	22	Western Mass.	—
Nashville	14	Wilkes-Barre	—
Stamford	11	Wilmington	—

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